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In Plain English

A Sandhills Publication

How To Edit, Protect & Restore

Critical PC Settings

System Updates
System Cleanup
Internet Options
Registry
Security & Security Updates
Appearance & Interface
User Accounts & Passwords
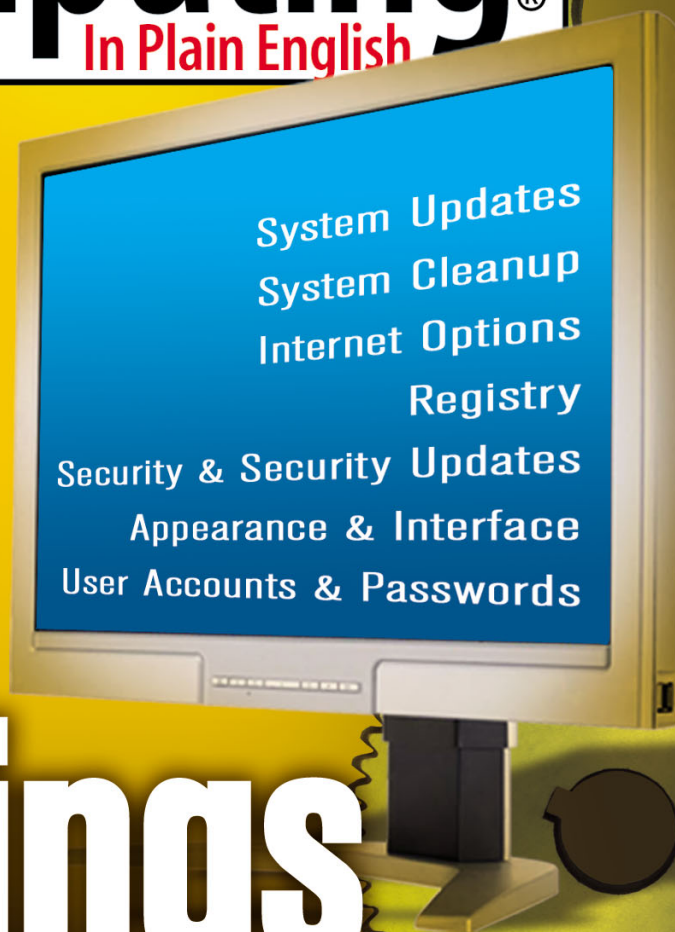
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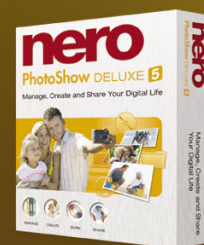
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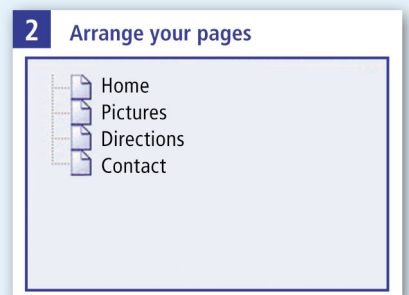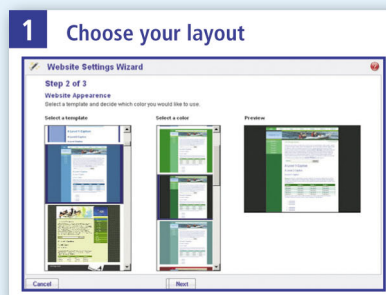
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	Home	Yahoo! STARTER	Go Daddy DELUXE
Included Domains	2 /through contract duration	1	$1.99 /year with purchase
Web Space	120 GB	5 GB	100 GB
Monthly Transfer Volume	1,200 GB	200 GB	1,000 GB
E-mail Accounts	1,200 IMAP or POP3	200 POP3	1,000 POP3
Mailbox Size	2 GB	Unlimited	10 MB
Search Engine Submission	✓	✓	Extra charge applies
Website Builder	12 Pages	✓	Freeware
Photo Gallery	✓	✓	✓
RSS Feed Creator	✓	–	$4.99/month
Ad-free Blog	✓	✓	Freeware
90-Day Money Back Guarantee	✓	–	–
Support	24/7 Toll-free Phone, E-mail	24/7 Toll-free Phone, E-mail	24/7 Phone, E-mail
Price Per Month	$4.99	$11.95	$6.99
SPECIAL OFFER	3 months free!*	$8.96 first 2 months	Save 10% with 1 year contract
TOTAL/YEAR	$44.91	$137.42	$75.48

We offer a variety of hosting packages to fit your needs and budget.

Creating a website has never been easier.

Our website builder runs from a browser window and lets you build a professional-looking site in minutes, without the need for an expert programmer or web designer. Let the wizard guide you through the process. Choose from a selection of templates and edit fonts and colors for added personalization. Using the simple point-and-click prompts and a built-in text editor, your website can be online in minutes!

1 Choose your layout

2 Arrange your pages

Home
Pictures
Directions
Contact

MEMBER OF
united internet

Call **1.877.go1and1**

solution?

3 Add text and pictures

Template

Designs

Each part of your website's design, from template to default text settings, can be found and edited in this section.

Scroll down and click on **Select** in the area you would like to change.

Click on the **Preview** icon at the top of this window to see your changes.

Main Image

Navigation Menu

Change

Change

4 Publish your website

Home Equipment Pictures Directions Contact

Kate's Kayaking Adventure!

This site was started in order so that I could keep my family and friends updated as to my kayaking activities. It's also a journal of my first few years of trips kayaking the rough, but beautiful, open ocean shores. I took up kayaking 4 years ago and I've loved every minute of it.

Ocean Kayaking is increasingly popular for coastal explorations, camping, cruising and bird watching as well as being good exercise.

My next kayaking trip will be to Ireland to discover the sea-caves, islands,

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THIS MONTH'S COVER STORY:

CRITICAL PC SETTINGS

News & Notes

Reviews

**Viewsonic
VX1932wm**

October Web-Only Articles

Smart Computing subscribers may read the following articles at SmartComputing.com.

Hardware

For the best prices on the latest hardware, visit the Where To Buy area at SmartComputing.com (www.smartcomputing.com).

Quick Studies

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Explore The Project Gallery

Email
This Message Will Self-Destruct

Roxio PhotoSuite 8
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Adobe Photoshop
Elements 4
Cookie Cutter Crop

Browsers
Manage Groups Of Tabs
In IE7 & Firefox 2

Microsoft Works 2006
Expand Your Portfolio

Security
Tracking & Recovery Tools

Adobe InDesign CS3
Use Color Swatches For Pro
Printing: Part I

HTML
Remove <FONT> Tags For CSS

Microsoft Works

Email

Adobe InDesign CS3

Editor's Note

You've heard of "modders," right? (You may even be one, although the odds are against it; not that many modders read *Smart Computing*.) Modders spend their time (countless hours of it, in fact) modifying computers. And while some of them concentrate on overclocking and super-cooling (two internal, performance-oriented mods that go together almost by definition), many spend their time doing external mods that are largely cosmetic in nature: They cut holes in cases for Plexiglas windows and for additional fans, they add lots of cool case lighting (often bright red, blue, green or all three), they spend thousands of dollars on paint jobs. (Yep, you can spend a couple of grand on a paint job for your computer.) Some modders go to great lengths to decorate, revamp, and rebuild systems to the extent that their computers no longer even look like computers; instead, they look like monsters, cars, spaceships, or other items or artifacts.

Modding takes talent. It takes time. It takes dedication. It takes skill. And it helps if you're slightly out of your mind.

You and I, on the other hand, tend to look at such mods the same way we might view a low-rider Chevy Impala at a car show: We can admire the workmanship and the design expertise that went into the blacklight-illuminated, rap music thumping, pneumatic shock-equipped, wheel-spinning vehicle, but most of us wouldn't actually want to own one. All that cosmetic stuff just doesn't do that much for us, in spite of how much work went into it and how impressive it might look.

Ah, but we do care about what's under the hood. We want everything there well adjusted, appropriately set, and correctly installed. No leaky hoses, no loose clamps. Valves outta whack? Well, get 'em adjusted. Fan belt loose? Tighten it up. An engine is a complex system and it needs to be properly made, tuned, and maintained.

You can see where I'm headed here, can't you?

You can't do much about the way your computer system—software and hardware—was made, but you can certainly keep it tuned up and make sure that it's correctly "adjusted." Just as with your automobile, there are dozens—perhaps hundreds—of settings you can tweak, correct, and protect. And devoting a little time to doing so will ensure that your PC keeps humming along in tip-top shape. In this month's issue of *Smart Computing,* we'll show you how.

ROD SCHER, PUBLICATION EDITOR

Now Available On Newsstands . . .

Computer Power User * The Best Board For Your Build

This issue, get a head start on your next build with our motherboard roundup, and don't forget to check in on your favorite columnists and reviewers, as well.

PC Today * Crank It Up To 4G

Just when you start to get an idea of what a 3G mobile phone is, 4G looms in the near future, offering more bells, more whistles, and higher price tags. This month's issue of *PC Today* includes a guide to these technologies.

First Glimpse * Everything You Need For Great Photos

Whether you're a novice photographer or an old pro, you'll find information on all the latest digital cameras and accessories in this month's issue. Discover what you really need to take great photos.

Compiled by Christian Perry
Illustrated by Lori Garris

DESKTOPS & LAPTOPS

Trusted Computing Aims To Boost PC Security

A PC is only as secure as its hardware and software allow it to be. If any of these components is inherently insecure, your PC is going to be at risk for infiltration by any number of threats. However, if these components are secure from the start, you won't need to go to extreme lengths to protect your PC.

Started by companies such as AMD, HP, IBM, Intel, Microsoft, and others, the TCG (Trusted Computing Group) was formed to create the TPM (Trusted Platform Module), a specification for silicon chips that can store security information, such as digital keys and passwords. This information is used to provide unique identification aspects about a computer and ensure that only secure transactions will occur between the computer and software, for example.

According to the TCG, the TPM concept reduces risk across multiple computing areas. One of these is inadequate user ID and password protection, which increases the risk of **spoofing**, or the process through which hackers mimic authorized users to gain access to systems. TPM can thwart these efforts by verifying the integrity of user login credentials.

Furthermore, as users require an increased number of user IDs and passwords to access various resources, the level of carelessness in storing that information can increase, in turn decreasing security. However, TPM helps to eliminate

Although certain versions of Microsoft's Vista feature TPM (Trusted Platform Module) technology, you'll still need a computer that includes compatible hardware to take advantage of the next-generation security features.

this risk by moving that information to on-chip, protected storage, and it also enables secure single sign-on.

TPM is beginning to emerge in products, including Microsoft's Windows Vista OS (operating system). Vista's BitLocker Drive Encryption feature, available in the Ultimate and Enterprise versions of the OS, uses TPM technology to encrypt the system volume. Unfortunately, while manufacturers are increasingly releasing computers with TPM hardware, many existing computers don't have the technology, which means

that even if you have software to run it, all the features will not work without the hardware.

With that said, there are online tutorials available that instruct users how to use BitLocker on systems that don't have a TPM. But while this process will provide encryption on the system volume and help to boost overall security, the system still won't enjoy the higher security provided by a complete TPM system. However, chip leaders such as Intel plan to incorporate TPM into future chipsets, so we can expect TPM to become a more widespread standard soon. ▌

Memory Goes Magnetic

As devices continue to shrink in size, the challenge for manufacturers to similarly shrink the components in those devices—while matching or surpassing the performance of current components—becomes even more difficult. But the innovations keep pouring in, and a new memory technology is just the latest example of these advances.

IBM and TDK have teamed to develop high-capacity MRAM (magnetic random-access memory), which boasts the ability to read and write data more quickly than flash memory and also can prove more durable. Although MRAM and flash memory are both nonvolatile technologies that allow data to be stored even when power is absent, they differ in the way they actually store data.
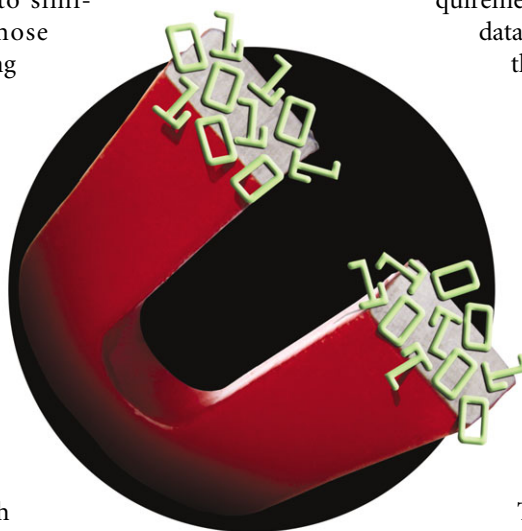
Both flash and MRAM require similar power requirements when reading data, but rewriting data requires flash to send pulses of voltage that not only ramp up power requirements but also require more time to process the command, and the pulse itself degrades the flash cells and creates a limited lifetime for the flash memory.

MRAM, on the other hand, uses magnetic components to store data, harnessing what IBM and TDK call the "spin momentum transfer" effect. Because there's no voltage pulse, the memory doesn't degrade and therefore has unlimited lifetime. This, along with MRAM's high speed and small size, could position the technology as a leading competitor to existing memory technologies in coming years. ▮

Twist & Turn Your LCD

Not long ago, 19-inch LCDs were seen as a luxury to the average computer owner, but with continuously dropping prices, 19- and 20-inch monitors are now commonplace. If you have a few more bucks to spend, it's now easy enough to ramp up to a 24-inch monitor, and new models offer more than enormous size alone.

HP has released the HP w2408 24-inch LCD ($630; www.hp.com), which uses BrightView antireflective technology to increase the viewing angle. The monitor can be rotated for viewing in landscape or portrait modes, and included software automatically adjusts the screen orientation to accommodate the mode. The monitor can also automatically adjust to the light in your home environment to deliver the best possible picture under various lighting conditions.

Integrated HDCP (high-bandwidth digital content protection) technology allows viewing of HD DVD or Blu-ray content, though you'll still need an HDCP-compatible graphics card. The w2408's native resolution is 1,920 x 1,200 at a 60Hz refresh rate and has a contrast ratio of 1,000:1, a 400nits brightness rating, a 0.282mm pixel pitch, and a 5ms response rate.

The monitor includes integrated speakers and also includes both DVI (Digital Visual Interface) and VGA (Video Graphics Array) cables. ▮

This new 24-inch LCD monitor from HP not only features enough horizontal room to view two side-by-side pages, but it also allows users to rotate the entire screen for viewing in portrait mode.

Catch The Keyboard Wave

Logitech has unveiled a new keyboard design that it calls a "significant evolution of the familiar straight keyboard." Both the Logitech Cordless Desktop Wave and Logitech Wave Keyboard use the company's Comfort Wave design.

The company says the design won't require people to relearn how to type, and in fact, the keyboards don't go to the extremes that previous ergonomic designs went. The keys aren't separated down the middle at all, but instead curve much like a wave to better accommodate the natural position of two hands.

Logitech incorporated three elements into the design to enhance comfort: the wave keyframe design; a U-shaped constant curve; and a cushioned, contoured palm rest. To accommodate the natural varied length of different fingers (for example, the shorter pinky finger vs. the longer index finger), the wave-shaped contour aims to cradle fingers with a shape that supports those varied lengths.

In other words, the *A* and ENTER keys are highest to serve the shorter pinky fingers, and the keys moving inward—to the *D* and *K* keys—decrease in height. The design then increases the height after these keys, moving upward toward the *G* and *H* keys to accommodate the index fingers.

The Cordless Desktop Wave has a suggested retail price of $89.99, while the Wave Keyboard retails at $49.99. More information on the keyboards and their design can be found at www.logitech.com/wave. ▌

The Comfort Wave keyboard design from Logitech employs a system of variable-height keys to accommodate the naturally varied lengths of fingers.

VIA Takes Low Road On Power

We hear plenty about chip manufacturers driving down the power requirements of their processors. After all, it's good to be green these days, and with so many other computer components vying for the attention of a device's power supply, every power-saving effort helps in its own way to boost performance and lower heat.

But how far can vendors go to reduce power? Just about as low as possible, if a recent announcement from VIA Technologies is any indication. The company recently announced a 500MHz addition to its Eden ULV (ultra low voltage) processor family that features an idle power of a mere 0.1 watt.
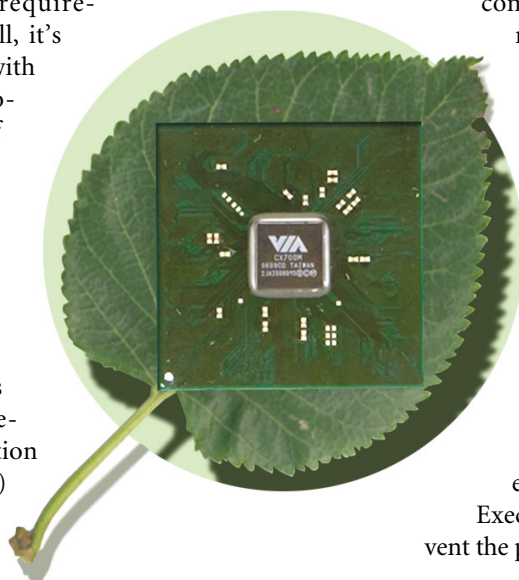
According to VIA, the new processor can be combined with the VIA CX700/M system media processor, an all-in-one chipset that has a maximum operating power of 3.5 watts. The new Eden chip features VIA's StepAhead technology suite, which integrates 16 pipeline stages; sophisticated branch prediction; and a 128KB, full-speed L2 cache.

Also integrated is VIA's PadLock Security Engine, which pulls together AES (Advanced Encryption Standard), Secure Hash Algorithms SHA-1 and SHA-256, and a Montgomery multiplier to boost the efficiency of the encryption process. NX Execute Protection is also included to prevent the propagation of worms. ▌

Sony Looks To Sweeten Batteries

You already know that sugar can give you energy. But would you believe that sugar can power your electronic devices? Sounds crazy, but Sony is developing a "bio battery" that uses sugar to generate electricity.

According to the company, these batteries have achieved a power output of 50mW (milliwatts), which Sony claims is the world's highest output level for passive-type batteries. Sony's batteries use enzymes as a catalyst to break down sugars, and the batteries do not require mixing of solutions—all that's required is a sugar solution to be poured into the battery unit.
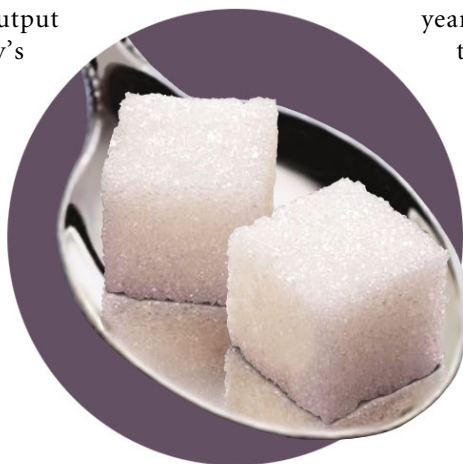
In a video demonstration of the batteries, a glucose solution was injected into a 4-cell battery unit, which then powered a Walkman and external speakers. The demonstration also showed an ordinary sports drink (containing glucose) being poured into bio batteries, which in turn powered a fan.

Bio batteries have been in the works for years as scientists look to create alternative forms of power. One of the barriers to mainstream use, however, is the size of the batteries. In the video demonstration of Sony's sugar-based battery, the battery cells were far larger than the Walkman they powered. ❚

I installed a new hard drive, but my computer's BIOS (Basic Input/Output System) doesn't see it.

Although it is possible that your new drive was DOA (dead on arrival), the more likely cause of trouble is that the cables aren't properly inserted. Make sure that the SATA (Serial Advanced Technology Attachment) or IDE (Integrated Drive Electronics) cable (depending on which cable your drive uses) is fully inserted into both the hard drive and motherboard. Also, make sure you have a functioning power cable (coming from the PC's power supply unit) inserted into the hard drive.

I have to scroll to see the entire Windows Desktop, even though my LCD is set at its native resolution.

Users of older Nvidia cards have reported this problem, which isn't always fixed by installing the latest graphics drivers. However, you might be able to solve it by creating a custom resolution in the Nvidia Control Panel. In the Change Resolutions box, enter the native resolution and refresh rate and click OK. The utility will check to ensure that the settings will work with your monitor and hopefully display the entire Desktop image on your screen.

I installed a new RAM module, but the BIOS recognizes only half of it.

In most cases, this indicates incompatible memory. If you're certain that the memory is compatible, try a different brand—your motherboard might just be finicky with that particular brand.

Where can I find Vista drivers for my HP laser printer?

If HP hasn't released official Vista drivers for your printer, you might find success using Vista drivers for other HP printer models. However, be warned that going this route brings with it the danger of buggy performance—though for some users, that's better than no performance. You can also try the HP Universal Print Driver, which supports most HP printers. ❚

iPhone Endures Bumps Along Early Travails

While other manufacturers race to release able competition, Apple's iPhone continues to dominate much of the attention in the smartphone market. However, the recent slate of press for Apple's innovative device is mixed with good, not-so-good, and simply interesting news.

According to research group iSuppli, the iPhone outsold all smartphones in the United States during its first month of release (July) and accounted for 1.8% of all mobile handset unit sales to U.S. consumers during that period. Other reports noted that the iPhone's early activations were lower than expected, prompting Apple's stock to dip. Some analysts suggested that activation problems reported by early iPhone adopters might have pushed potential customers to wait on purchasing the iPhone until Apple ironed out the early wrinkles.

However, Apple in September announced a $200 price cut on the iPhone, along with a $100 credit to any customers who bought the device before the announcement. The price drop, according to Piper Jaffray analyst Gene Munster, gave iPhone sales a massive boost, with sales climbing from 9,000 per day at the previous $599 price to 27,000 per day at the new, lower price.

The iSuppli study also noted that one quarter of consumers who bought iPhones switched to the AT&T service, which comes as no surprise, because AT&T is the exclusive iPhone service provider. However, that exclusivity isn't sitting well with all iPhone consumers and has pushed some to do something about it.

Widespread interest in modifying the iPhone was sparked when a New Jersey teenager, George Hotz, announced that he had hacked the iPhone to allow the device to be used on networks other than AT&T's network. Hotz showed his handiwork on a YouTube video that demonstrated his hacked iPhone being used on the T-Mobile network. Since then, multiple independent projects have surfaced that claim the iPhone can be unlocked for use with other networks.

Finally, Apple has fielded early complaints from users who claim that the iPhone's keyboard is dreadfully slow when compared with other smartphones. According to a recent study, it appears those claims have some validity. User Centric gathered 20 study participants who were heavy senders of text messages. Ten of the participants owned phones with QWERTY keypads, and the others owned phones with numeric keypads that require multi-tap to input messages.

The study found that messages entered by the owners of QWERTY keypad phones took twice as long to enter when using the iPhone. The owners of multi-tap phones, however, required roughly the same time to enter messages on the iPhone as they did on their own phones. ▮

Although Apple's iPhone outsold other smartphones during the first month of its release, it's generating complaints from users about activation and sluggish keyboard performance. (Image courtesy of Apple)

"The machine isn't that strong, much less so than a muscular man. Even women should be able to beat it."

—Atlus spokeswoman Ayano Sakiyama describes her company's Arm Spirit arm wrestling video game, which the company pulled from Japanese arcades after players broke their arms while trying to beat the machine's mechanized appendage.
Source: Associated Press

News From The Help Desk

Our Most Common Tech Calls

COMPILED BY KYLEE DICKEY

Each month, we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover two of the most common or timely tech support questions and provide our solution for each of them.

Q How do I activate Microsoft Windows Vista?

A You must activate Windows Vista within 30 days of installing it, or your use of the software will be limited. For example, if you don't activate Vista before the 30-day activation period is over, you won't be able to save changes to files or create new files. If you notice that you can no longer save files or create new files, you probably need to activate Windows Vista. Alternatively, you may see a message informing you that your 30-day activation period has ended and that you need to activate Vista.

The easiest way to activate Vista is to do so online. After you start your computer and Vista loads, click the Start button and Computer. Click the System Properties button on the toolbar and then click the Click Here To Activate Windows Now link. Vista may ask you to enter your administrator password before it activates Vista. If you are prompted for your password, type it in the Password field and click the Continue button. Follow the instructions on the screen to activate Vista.

Check to see if Vista is activated by clicking the Start button, Control Panel, System and Maintenance, and System. You will find Vista's Activation Status listed under the Windows Activation section.

Afterwards, you can check to make sure that Vista was properly activated by clicking the Start button and Control Panel. Then click System And Maintenance and then System. Look under the Windows Activation section. You should see the current Windows Vista Activation Status listed.

Q I have received an attachment that is in the new Microsoft Office format, Office Open XML (Extensible Markup Language). I haven't upgraded to Office 2007 yet. Is there a way that I can open the file I received?

A Yes, but you will first need to download a Microsoft Office Compatibility Pack that will let your older version of Office open and read Office Open XML documents. The Compatibility Pack that you download will update several programs, including the following: Excel 2000/2002/2003, PowerPoint 2000/2002/2003, and Word 2000/2002/2003. In other words, the Compatibility Pack works with the Office 2000, Office XP, and Office 2003 suites.

To make your computer compatible with Office 2007's Office Open XML files, you need to ensure that you already have a variety of updates installed *before* you install the Microsoft Office Compatibility Pack.

If you use Office 2003, go to support.microsoft.com and type **KB923097** in the Search Support (KB) field on the

If you didn't set Windows Vista to automatically activate, you can complete the activation by accessing Vista's System Properties.

Microsoft
Download Center

Security Update for Office 2003 (KB923272)

Brief Description
A security vulnerability exists in Microsoft Office 2003 that could allow arbitrary code to run when a maliciously modified file is opened. This update resolves that vulnerability.

On This Page
- Quick Details
- System Requirements
- Related Resources
- Overview
- Instructions
- What Others Are Downloading

Download

Quick Details

File Name:	office2003-KB923272-FullFile-ENU.exe
Version:	1
Date Published:	10/6/2006
Language:	English
Download Size:	10.8 MB
Estimated Download Time:	Dial-up (56K) 27 min
Change Language:	English Change

Overview
You can get specific information about this update in the Microsoft Knowledge Base article Description of the Security Update for Office 2003 (KB923272).

Note: Users of Indonesian, Malay, Urdu, and Vietnamese language versions of Microsoft Office 2003 can download and install office2003-KB923272-fullfile-enu.exe. Refer to the Instructions section below for details.

↑ Top of page

System Requirements
- **Supported Operating Systems:** Windows 2000 Service Pack 3; Windows Server 2003; Windows XP
- **This update applies to the following product:** Microsoft Office 2003.

Depending on which version of Microsoft Office you use, you may need to download quite a few updates before you can install the Microsoft Office Compatibility Pack and gain access to Office Open XML (Extensible Markup Language) files.

right side of the screen. Then click the arrow button to the right of the Search Support (KB) field. From the list of search results, click Description Of The Update For Office 2003: October 10, 2006. Then click the How To Obtain And Install The Update link on the resulting page. Click the URL listed under the How To Obtain And Install The Update heading. Next, click the Download button in the blue Quick Details box. When prompted, choose to save the file to your hard drive. Locate the file, which is named Office2003-KB923097-FullFile-ENU.exe, on your hard drive and double-click it. Follow the on-screen instructions to install the file and then restart your computer when the installation is complete.

Next, go to support.microsoft.com again. This time, type **KB923272** in the Search For (KB) field and then press ENTER or click the arrow button next to the Search For (KB) field. In the search results, click Description Of The Security Update For Office 2003: October 10, 2006. Then click the link under IT Professionals. Click the Download The Update (KB923272) link next to Microsoft Office 2003 Service Pack 1 Or Service Pack 2 under Affected Software. On the resulting page, click the Download button and, when prompted, choose to save the file to your hard drive. Locate and double-click the file once you've downloaded it. Follow the instructions on the screen, and when the installation is complete, restart your computer.

Go to support.microsoft.com again and type **KB923088** in the Search For (KB) field and press ENTER. Then click Description Of The Security Update For Excel 2003:

October 10, 2006. Next, click the link listed under IT Professionals. Scroll down the page until you see the heading Microsoft Office 2003 Service Pack 1 Or Service Pack 2. Then click the Download The Update (KB923088) link. On the resulting download page, click the Download button in the blue Quick Details box. When prompted, choose to save the file to your hard drive. After the download is complete, locate the file you just downloaded (Office2003-KB923088-FullFile-ENU.exe) and double-click it. Follow the instructions on the screen to install the update. After you install the update, restart your computer.

Return to support.microsoft.com and type **KB923091** in the Search For (KB) field and press ENTER. Then click Description Of The Security Update For PowerPoint 2003: October 10, 2006. Then click the link under IT Professionals. On the next page, click the Download The Update (KB923091) link under Affected Software. On the download page, click the Download button in the blue Quick Details box and choose to save the file to your hard drive when prompted. Locate the file (Office2003-KB923091-FullFile-ENU.exe) on your hard drive and double-click it. Follow the instructions on the screen to install the update. Afterwards, restart your computer.

Next, type **KB923094** in the Search For (KB) field at support.microsoft.com. Press ENTER. From the list of search results, click Description Of The Security Update For Word 2003: October 10, 2006. On the resulting page, click the link under the IT Professionals heading. On the resulting page, scroll down to the Affected Software section and click the Download The Update (KB923094)

link. Next, you'll see the download page for the update. Click the Download button in the blue Quick Details box. Save the file to your hard drive when prompted. Locate the file you just downloaded (Office2003-KB923094-FullFile-ENU.exe) and double-click it. Follow the instructions you see on the screen and restart your computer when the installation is complete.

If you use Office XP (including Excel 2002, PowerPoint 2002, and Word 2002), go to support.microsoft.com and type **KB918420** in the Search For (KB) field. From the list of results, click Description Of The Security Update For Microsoft Excel 2002: July 11, 2006. Then click the link listed under the heading IT Professionals. Scroll down to the list of Affected Software and click the Download The Update (KB918420) link under Microsoft Office XP Service Pack 3. On the resulting page, click the Download button in the blue Quick Details box. Follow the instructions on the screen and, when prompted, choose to save the file Officexp-KB918420-FullFile-ENU.exe to your hard drive. Locate the file you just downloaded and double-click it. Follow the instructions on the screen to install the update. Once the installation is complete, restart your computer.

Next, return to support.microsoft.com and type **KB917153** in the Search For (KB) field and press ENTER. Then click Description Of The Update For PowerPoint 2002: July 11, 2006. Then click the How To Obtain And Install The Update link. Click the URL listed under the How To Obtain And Install The Update heading. Before you can download the update, you'll need to prove that you have a genuine copy of the Microsoft software. To do this, click the Continue button next to Validation Required. Follow the instructions on the screen to validate your software. When validation is complete, you'll see the download page again. Click the Download button in the Quick Details box. When prompted, choose to save the file to your hard drive. After the download is complete, locate the file named Officexp-KB917153-FullFile-ENU.exe and double-click it to start the installation process. Follow any instructions you see on the screen, and restart your computer when the installation is complete.

Finally, go to support.microsoft.com again and type **KB917347** in the Search For (KB) field and press ENTER. Click Description Of The Update For Word 2002: July 11, 2006. On the resulting page, click the How To Obtain And Install The Update link. Then click the linked URL listed under the How To Obtain And Install The Update heading. You must prove that you have a legitimate copy of your Microsoft software in order to install this update. To do so, click the Continue button next to Validation Required in the Quick Details box. Follow the instructions on the screen to validate your copy of the software. When you once again see the download page, click the Download button in the Quick Details box. If prompted, choose to save the file to your hard drive. Locate the file, which is named Officexp-KB917347-FullFile-ENU.exe, and double-click it to launch the installer. Follow the on-screen instructions to install the update and then restart your computer.

If you use Office 2000, you're in luck, because you don't need to download any special updates before you install the Microsoft Office Compatibility Pack.

Once you've downloaded all of the necessary updates detailed above, you're ready to download and install the Microsoft Office Compatibility Pack for Office 2000, Office 2003, and Office XP. You can find this update by going to tinyurl.com/wamjh. On the resulting page, click the Download button. If prompted, choose to save the file to your hard drive. Once you've downloaded the file, locate it on your hard drive and double-click it to launch the installer. Follow the instructions on the screen to install the Microsoft Office Compatibility Pack.

After you've installed the Microsoft Office Compatibility Pack, it's a good idea to go to update.microsoft.com and scan your system for any further updates that may be available. If you find any updates your system needs, download them according to the on-screen instructions. After you've finished installing the Microsoft Office Compatibility Pack and any necessary updates, restart your computer. ▐▐

Feature Package Topics

Each *Smart Computing* issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a *Smart Computing* subscriber, you have access to all of our archived articles at www.smartcomputing.com.

November 2006:	Easy Answers To Your Printing Questions
December 2006:	Make Your PC A Computerized Media Center
January 2007:	My PC Won't Start!
February 2007:	7 Critical Things You Should Know About Your Operating System
March 2007:	Resolve System Conflicts The Fast & Easy Way
April 2007:	Windows Vista: What You Can Expect From Microsoft's New Operating System
May 2007:	Set Up & Maintain A Wireless Network & Keep It Connected
June 2007:	Tweak & Troubleshoot Windows Vista
July 2007:	Clean It Out, Speed It Up!
August 2007:	Improve System Startup/Shutdown: Make Your PC Faster & More Stable
September 2007:	What To Do About PC Errors & Error Messages
October 2007:	Build It Yourself: How To Create The Perfect PC

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Keep Your PC Running Like New With The Premier PC Repair & Maintenance Utility

Is your PC slowing down, crashing or simply not booting? Let Fix-It Utilities restore your PC back to the way it was when you first unpacked it. Get the speed, stability & performance you deserve from your computer with the help of over 40 maintenance and optimization tools.

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- **40+ Integrated Tools** that will fix, repair and optimize your PC for maximum performance.
- **4 One-Click Fix Wizards** help you optimize and protect your system or perform a comprehensive system tune-up automatically.
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- **PC Diagnostic Tests** provide extra-powerful system diagnostics.
- **Disaster Recovery** helps rescue your PC when Windows won't start. Rescue Boot CD Included.
- **Registry Repair & Maintenance** lets you fix defective and broken program links.
- **Data Recovery Tools** help you quickly and easily locate and recover deleted files, photos, music, videos, email and more.

Use FreshBattery To Power Up Your Notebook

Now you can give your notebook computer the extra hour of power it needs to last through a long flight or business presentation. FreshBattery, the online source for replacement batteries for mobile computers, has created a new line of batteries called UberPower that can power notebooks up to 75% longer than OEM (original equipment manufacturer) products. UberPower high-capacity lithium-ion batteries are lightweight and designed to work with today's most popular business notebooks from leading manufacturers such as Dell, HP, IBM/Lenovo, and Apple.

The extended-life batteries in the UberPower line last longer and provide maximum run power. As with all FreshBattery products, UberPower batteries are stamped with a "born on" date that ensures freshness. FreshBattery guarantees compatibility for its competitively priced products, which can be purchased through the company's Web site at FreshBattery.com. The site has several easy-to-use search tools to help you quickly find the right battery for your make and model of notebook computer.

FreshBattery's UberPower line of replacement notebook batteries is fashioned for today's leading notebook models, but the company also produces the Legacy line of battery products for older notebook computers.

For more information on the UberPower and Legacy lines of batteries, and to find the perfect battery for your notebook, visit FreshBattery.com.

Mobile Video Viewing Made Easy

iRecord Takes The PC Out Of The Equation

Blaine Flamig

Send your comments to
blaine@smartcomputing.com

iRecord

$199.99
Streaming Networks
(408) 727-3904
www.irecord.com

If you're the least bit like me, if you never see a little "i" slapped on the bumper of another product name again it will be too soon. iPod? OK, the lowercase i was novel and warranted when Apple used it way back when. I'll even grant a pass to the first gazillion or so i-*products* that piggybacked on the music player's insane popularity and went the i-association route. Business is business, after all. But really, when can we expect companies to stop stamping a small i on their goods? Is a little i-originality too much to ask?

That naming-scheme rant aside, I'll gladly look past the moniker Streaming Networks gave its iRecord, a packed-with-potential video-recording device the company calls a "Personal Media Recorder." The iRecord, in fact, shows so much promise at letting you easily record DVD movies (copyright-protected ones included), TV programs, and other audio and video content directly to an iPod video, Sony PSP (PlayStation Portable), or numerous other mass storage devices without needing a PC to do it that Streaming Networks could have named the thing Big Knucklehead and still had a winner.

Physically unassuming, a cinch to use, and firmware-upgradeable (thus you can constantly add new functionality), the iRecord is one of the coolest, came-out-of-left-field devices I've run across in a long time. I wasn't even looking for something that does what the iRecord can, but that hasn't stopped me from enthusiastically experimenting with it since receiving it months ago.

Say, for example, you want to record "Monday Night Football" and watch the game on the commute to work in the morning. With the iRecord, you'd connect it to your TV, cable box, or DVR—it also works with a portable DVD player, VCR, camcorder, stereo, gaming console, etc.—and then plug your iPod video or PSP directly into the iRecord's USB port, press the Record button, and you're recording the game to your mobile device. You can also plug a USB flash mem-ory drive into the iRecord's USB port (I used SanDisk's 4GB Cruzer Contour and 2GB Cruzer Titanium), record to the flash drive, and move the files to your PC for usage.

To connect the iRecord to AV sources, you get RCA audio and video cables and an S-Video cable Streaming Networks suggests using as a preferable connection to TVs or home-theater systems. An included illustrated users manual does a fine enough job at helping make various connections and starting recordings, but several how-to videos available on the company's Web site are even better, as is its fairly extensive forum where company reps regularly answer troubleshooting questions from users.

Streaming Networks is still working out some kinks with the iRecord, both in terms of adding functionality and compatibility with other mobile devices (it recently added iPhone support, and you can probably expect support soon for Apple's newest iPods), but the iRecord is already a viable option if only because it takes the PC out of the often-laborious process of encoding video to a format a respective mobile device supports and transferring it for viewing. Usage-wise, Streaming Networks claims the patent-pending compression method the iRecord uses stores three hours of video and audio per 1GB storage, which is about on par with my experience. The device encodes iPod- and PSP-viewable video (320 x 240) to H.264/AVC formats and audio to AAC. Audio-only recordings (such as recording an LP from a turntable to digital files on an iPod) are encoded to MP3s.

An early knock on the iRecord was that it didn't include a scheduled-recording option, but a recent firmware release overcomes that obstacle. Further, Streaming Networks supports recording audio to any iPod player regardless of generation. (I used a second-gen nano.) The iRecord does have a bit of a learning curve to overcome—the LED sequences it uses to indicate various functions, for example, could be more intuitive—but with the ability to bypass paying for downloads from iTunes and omit the PC from the operation, the iRecord may be the handiest iPod accessory I've used, little i and all. ▐▌

Flash Drive Fun

Carry Your Digital World On A Keychain

Joshua Gulick

Send your comments to
joshua@smartcomputing.com

When flash drives first appeared on the market, we geeks were ecstatic. Here were devices that acted much like floppies (you can just drag and drop files without the hassle of burning them, as CDs require), and they had much higher capacities than their 3.5-inch brethren. I remember snapping my first USB flash drive onto my keychain and imagining my social appeal skyrocketing.

Alas, the flash drive wasn't (and still isn't) the conversation-starter that Apple's iPod portable music player is. But, flash drives are much more common now, and even people who aren't as dedicated to computers as we are carry them. That makes sense, of course. After all, non-techies often carried floppies.

The need for digital storage in day-to-day life reared its head recently when my wife attended a bridal shower, during which the bride's friends planned to use a digital photo frame to display the day's pictures. They discovered at the shower itself that they needed a flash drive to transfer photos from the PC to the frame. Luckily, my wife has one that transports her work files and doubles as a fashion accessory that dangles from her purse. The slideshow went on.

This month, I looked at two drives that offer plenty of storage for photos, music, and work files. One is surprisingly tiny, while the other has a fancy form of protection.

Lexar JumpDrive FireFly

The FireFly is fewer than 1.75 inches in length, making it shorter than the customer loyalty card from my grocery store. Both attached unobtrusively to my keychain. I was able to slip the keychain into my pocket without any trouble, either. That's not the case with larger USB drives, which tend to jab my leg when I sit down.

In an unusual move for USB manufacturers, Lexar designed the cap to attach to the keychain, rather than the base of the

JumpDrive FireFly

$49.99 (2GB)
Lexar
(800) 789-9418
(510) 413-1200
www.lexar.com

M-Flyer Pilot

$49.99 (2GB)
Memorex
(877) 474-8548
(562) 653-2800
www.memorex.com

USB key. With this setup, I was able to remove the drive completely from the keychain when I wanted to plug it into a computer. That's a nice touch, considering that my keys would likely scratch up the PC if they dangled from the USB drive. The drive is available in a variety of colors and sizes ranging from 256MB to 8GB.

Memorex M-Flyer Pilot

Like Lexar, Memorex also protects the drive's USB connector. The Pilot, which is a little larger than the FireFly but remains very small and pocketable, has a button that I pushed to produce the USB connector. Once I push the button, the connecter extends from the tip of the unit, much like a retractable pen. Thanks to the retractable connector, I'll never lose the drive's cap. That's more important than it sounds—pocket lint can easily gum up unprotected flash drive connectors.

The Pilot, which is available in spacious 2GB and 4GB capacities, includes Migo Portable Vault software, an easy-to-use program that locks files in an encrypted digital vault. This password-protected software is handy for people who worry that they might misplace the flash drive in a public place, but if you don't want the software, you can just erase it from the drive.

Not Just A Flash In The Pan

Both of these USB flash drives are good buys. I love the FireFly series for its size, fun colors, and unique cap. In my opinion, it's one of the most keychain-friendly flash drives around. At the same time, I can't get over the Pilot's pen-like retractable connector, and I like its Portable Vault encryption software. Both have indicator lights that let you know when data is transferring between the drive and the PC, and both are sturdy little flash drives.

By the way, my wife's USB "accessory" makes me wonder if I should start a line of techie fashion accessories. Josh-Tech could launch in the spring with jeans that have built-in iPod docks and a wired jacket that lets you connect your electronic gadgets—unless Levi (www.levi.com) and Scottevest (www.scottevest.com) beat me to it. ▮▮

A Washable Keyboard

An Easy Way To Prevent Colds & Flu?

Kathryn Dolan

Send your comments to
kathryn@smartcomputing.com

Seal Shield Infection Control Desktop Combo Kit

$99.99
Seal Shield
www.sealshield.com

In the dead of last winter, probably during the height of flu season, I read a report that described the computer keyboard as the dirtiest, most germ-laden piece of equipment in most offices. One report, written in a style Dr. Seuss himself would have been proud to author, called the device a "bacteria cafeteria."

I wish I could say those reports provided the impetus for me to get a new keyboard. The truth is, though, germs are the least of my keyboard's problems. It harbors remnants of many hastily eaten lunches on deadline days; the *Q*, *Z*, and *X* keys are the only keys with fully formed letters left on the entire board; and a thick coating of fuzz appears to connect the keys to one another.

Stuffy Heads & Runny Noses

One sunny June morning, on the way to work, I half listened as a reporter talked about waterproof and/or washable keyboards that she'd found at Seal Shield (www.sealshield.com).

I mostly forgot about the report until a recent morning when several co-workers were coughing, sniffling, and sneezing. As we enter another cold and flu season, it seemed like a good idea to look into this waterproof, washable keyboard. I decided to try the Seal Shield Infection Control Desktop Combo Kit ($99.99). The kit contains a dishwasher-safe, medical-grade keyboard; a washable, medical-grade mouse; and a washable, medical-grade, antibacterial mouse pad.

Although the box wasn't heavy, I was expecting to see something made of stainless steel that would look at home in a hospital room. Instead, I found . . . a keyboard that looked like my dirty keyboard only clean and with legible letters. It's lightweight and made of black plastic, and it connects to my PC with its 6-foot USB cord. The mouse also attaches to a USB port, and the kit comes with a USB-to-PS/2 (Personal System/2) adapter.

The Quick Start Guide has three instructions: Turn computer power off; attach keyboard cable to your computer, using either a USB port or a PS/2 port; and turn computer power on. After doing those three things, sending a few emails, and editing an article, I realized that typing with the new keys felt no different from typing with my old keys—except less sticky.

Testing, Testing

Soon enough, it was time to start spilling things. First, I just dripped water on the keyboard. The instructions say to unplug the keyboard and let it dry out. The next day, it still worked, so I drizzled orange juice over the keys. After unplugging the keyboard, I slipped the included waterproof cap over the USB plug and ran hot, soapy water over the entire keyboard in the kitchen sink. The keyboard dried in the dish drainer overnight, and the next day, when I plugged it in, it worked perfectly.

For my final test, I slopped vanilla ice cream and some root beer on the keyboard and let it sit overnight. The day-old root beer float was unpleasantly congealed, so I unplugged the keyboard, popped the waterproof cap over the USB plug, positioned the keyboard on the upper rack in my dishwasher, and ran a normal wash cycle, using the same detergent I use on the dishes.

Although it went through the dry cycle in the dishwasher, too, I let the keyboard dry an additional day, and when I needed to plug it in and finish writing this article, it again worked perfectly. The mouse is also washable, and it's topped with a rubberized cover, which takes a day or so to get used to. You manipulate the left and right mouse buttons and the scroll mechanism through the rubber coating.

If this new, washable keyboard and mouse prevent me from catching or spreading just one cold this season, I'll consider the $100 well spent. ▐▌
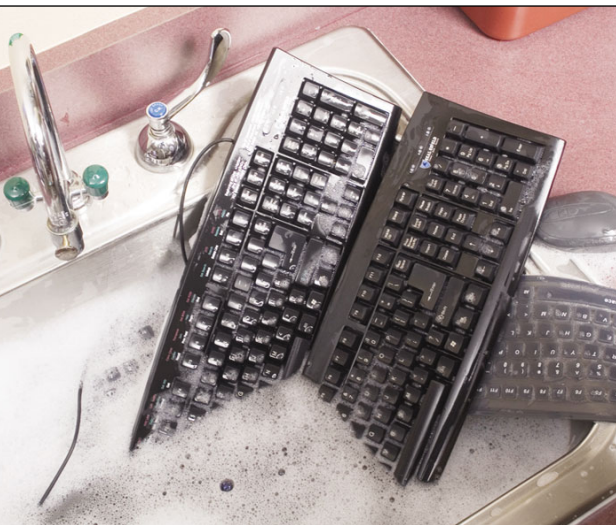
Drive A Tank For The Holidays

Gaming For Grown-Ups

Marty Sems

Send your comments to
marty@smartcomputing.com

With all that you read about the usefulness of the Internet and productivity applications such as Word, you could be forgiven for forgetting what your computer really is: a big box of F-U-N! Seriously, if you can't play a few games on your PC now and again, you might as well kick it to the curb.

You don't need the latest hardware to play the vast majority of games out there. You don't even need to be a teenager or a twentysomething. Casual gamers come from all age brackets and all walks of life. And I've read somewhere that more women play video games than men.

Casual gamers enjoy online puzzle games such as Bejeweled 2 (puzzle-games.pogo.com/games/bejeweled2) and Sweet Tooth (puzzle-games.pogo.com/games/sweet tooth). There are low-key sports games such as Tiger Woods' PGA Tour 08 ($39.95; www.easports.com), strategy games such as Sid Meier's Civilization III Complete ($19.99; www.civ3.com), and "board" games such as Chessmaster 9000 ($9.95; www.ubi.com). And then there's the old standby, Solitaire, plus a handful of others that come free with Windows, such as Vista's new children's game, Purble Place.

If you or someone you love has fond memories of the *bleeps* and *bloops* of arcade games, here's one Christmas present that won't get relegated to the basement closet. X-Arcade's huge Tankstick ($199.95; www.x-arcade.com) lets you play arcade-style games with the joysticks, buttons, and trackball you remember.

This isn't a cheaply made toy. It's 2.5 feet wide and weighs nearly 20 pounds. Every bit of the Tankstick is built from the same nearly indestructible components as a real arcade game cabinet. There's a lifetime warranty and a 30-day money-back guarantee, plus toll-free tech support. (That last part is very welcome. I've played with various X-Arcade products in the last five years, and each of them has required at least a little setup.)

The Tankstick comes with 18 great classic arcade games, such as Missile Command, Asteroids, and Defender. X-Arcade also sells solo trackballs for $49.95 and single and dual joysticks for $99.95 and $129.95.

You can use any X-Arcade controller with a Mac or a PC, as well as with game consoles such as the PlayStation 2 with adapters (although the trackball won't work). The adapters are sold separately for $19.95 and up, but you get one free with the Solo and Dual Joystick models.

DIY Data Recovery

Last month I told you about a hard drive recovery by First Advantage Data Recovery Services. It was a story with a happy ending, but like a storybook wedding, there's the small matter of a big bill afterward.

If you want to recover some data that's not exactly worth a thousand dollars to you and your hard drive is still functioning, look into some do-it-yourself recovery products. They probably won't be as effective as a professional service, but they can fill the bill for many less-than-crucial recoveries.

For hard drives, there's Seagate File Recovery for Windows ($129; services.seagate.com/diysoftware.aspx) and Pandora Recovery (free; NTFS-formatted drives only; www.pandorarecovery.com/download). For CDs and DVDs, there's CDRoller ($34; www.cdroller.com) and ISO Buster ($29.95; www.isobuster.com). Many recovery utilities have free trial versions that can tell you which files they can recover, if any, but you'll generally need to pay for a full version to actually recover your data.

Remember that the more you use your hard drive after a data loss, the more likely it is that the bits you want to recover will be overwritten with new data. In other words, don't install or download any new programs if you can help it. Many data recovery applications can be run from bootable CDs or USB drives specifically to avoid this problem. Good luck! ❚❚

Tankstick

$199.95
X-Arcade
(866) 942-6464
www.x-arcade.com

Email Clients

I t's easy to let inertia control how you send and receive email. Outlook Express, or its Vista replacement, Windows Mail, comes preloaded on every Windows machine. They're good programs, easy to use and understand, and most users have little need to track down alternatives.

Microsoft's email clients are not the only game in town, however. An increasing number of users communicate through Web mail applications, such as Gmail, though some people would rather use a standalone POP3 (Post Office Protocol 3) client. We'll take a look at Outlook Express and several other POP3 clients below to see how they stack up.

Outlook Express

✓	Systems Supported
🔲	Windows Vista
🔲	Windows XP/2000
🔲	Windows Me
🔲	Windows 98
🍎	Mac
🐧	Linux

Outlook Express 6

Widely used Outlook Express, recently replaced in the pantheon by Vista's Windows Mail, provides a baseline for email programs. It performs the core mission well, with a fairly attractive interface and little in the way of needless complexity. Despite its name, Outlook Express has little in common with Outlook, Microsoft's corporate email client, except for the basic interface (folders on the left, messages on the right) that most email programs share.

One problem Outlook Express users have contended with over the years is relatively poor security. Because it relies on Internet Explorer to render mail messages, Outlook Express suffers from all of the hacks and viruses that feed on the world's most popular Web browser. A good antivirus program and regular Windows security updating minimizes the threat, but it's not something to be ignored.

Thunderbird

✓	Systems Supported
🔲	Windows Vista
🔲	Windows XP/2000
🔲	Windows Me
🔲	Windows 98
🍎	Mac
🐧	Linux

That flaw aside, Outlook Express brought email to many users for the first time over the years. Outlook Express also manages multiple user identities, which makes it easier to share computers with a housemate or family member. OE and Windows Mail also double as decent newsgroup readers.

Just to make things a little more complicated, Windows Mail is not the only Outlook Express successor out there. Microsoft is also developing Windows Live Mail, which will one day replace Windows Mail in Vista. Windows Live Mail is designed to work well with Microsoft's Web mail service, Hotmail, but it will also check POP accounts. Windows XP or Vista users can download a free beta copy at get.live .com/betas/maildesktop_betas. Vista users should probably stick with the standard Windows Mail for now, but OE users with WinXP might want to see what the more secure Windows Live Mail has to offer.

Thunderbird

Venturing beyond the Microsoft stable, the first alternative you're likely to encounter is Thunderbird. If you prefer the open-source Web browser Firefox over Internet Explorer, you'll probably like Thunderbird better than Outlook Express. Even if you're not a Firefox fan, Thunderbird offers plenty of reasons to make the switch on its own.

For starters, Thunderbird includes a built-in adaptive spam filter, something sorely lacking in Outlook Express. Thunderbird's message filters (a function that gives you the ability to sort incoming mail) are also much more capable and, in our view, easier to understand. Rules can include a long list of criteria and actions. You can even set different rules for different email accounts.

Thunderbird offers two major ways to organize messages. You can sort email into folders, as with most other programs, but you can also add tags. Some tags, such as Important, To-Do, or Personal, come built-in, but you can make your own. Different color subject lines can be associated with different tags, and you can sort messages within a folder by tag.

Thunderbird's biggest claim to fame, however, is its ability to add a host of features

✓	Systems Supported
	Windows Vista
	Windows XP/2000
	Windows Me
	Windows 98
	Mac
	Linux

BUYING TIPS

Price is always a factor when testing out new software to find the best fit. In this case, the most popular email clients (Outlook Express/Windows Mail) and our Smart Choice pick, Thunderbird, are all free options. So before spending money on an email program, see if the features you need are already available at no cost. Also, take a look at downloadable extras: Email programs are not limited to the standard, built-in functionality. Thunderbird in particular enjoys a wealth of free add-on extensions that give the program new capabilities.

with (usually free) add-on extensions. Any feature you might want in an email program is probably the focus of some extension already written and made available to others by some developer or technically savvy user. A wide range of Thunderbird themes is also available to change the look of the program.

Thunderbird also has much in common with Microsoft's client. Like Outlook Express, Thunderbird includes a newsgroup reader. Thunderbird also has a similar system for managing different users sharing the same computer. The look of the program is very much like Outlook Express, and someone used to working in one program should have no trouble reading and writing email in the other.

The Bat! 3.99

With a slightly offbeat name and hailing from the Republic of Moldova, The Bat! (yes, the exclamation point seems to be part of the name) is probably not an email client you've heard about or seen anyone else use. The Bat! does seem to have a following, however, mostly because of its security measures and support for automated tasks.

The more advanced features take some study to figure out. The Bat! comes with one prescheduled event already set up: an automatic backup that can save all of your messages and settings to a chosen location. It's a nice feature if you don't already have a backup plan. Setting up other automated events, however, requires a trip

through several screens that aren't always self-explanatory.

The Bat! also comes with a good spam filter and a very comprehensive Sorting Office to build rules for filing incoming messages automatically. Complex rules can pick out particular types of messages and perform a variety of actions, including sending customized automatic replies. Outlook Express and others also include message rule tools, but none we've seen are quite as extensive as The Bat!

Though some might find The Bat!'s unique features useful, they come at a price: Unlike more popular email clients, The Bat! costs money. A standard home license is $35; students get a $10 discount. The developers offer a 30-day trial period where you can put The Bat! through its paces to see if it is worth laying out actual cash. As for support, attempts to call Moldova may be cost-prohibitive; it's best to try the company's forums, email support, and knowledge base.

Pegasus Mail 4.41

There's something sweet about David Harris' free Pegasus Mail. Maybe it's the David vs. Goliath history or its tenacious and dedicated users. Despite invoking a nostalgic affection, Pegasus Mail remains an up-to-date and useful client.

Pegasus has a long history with Novell Netware, but it's a good choice for home

Software Information

	Price	Company	Contact Information	URL
Outlook Express 6	Free with Windows	Microsoft	(800) 642-7676	www.microsoft.com
Thunderbird	Free	Mozilla	Online only	www.mozilla.com/thunderbird
The Bat! 3.99	$35 (home edition); 30-day free trial	RITLabs	office@ritlabs.com	www.ritlabs.com
Pegasus Mail 4.41	Free	David Harris	tech-support@pmail.gen.nz	www.pmail.com
PocoMail 4.5	$39.95; free trial	Poco Systems	Online email only	www.pocosystems.com

Scorecard

	Features	Ease Of Use	Installation	Support/Documents	Price	Overall Score
Outlook Express 6	4	4	4	4	5	4.2
Thunderbird	5	5	4	4	5	**4.6**
The Bat! 3.99	4	3	4	2	2	3
Pegasus Mail 4.41	4	3	4	2	4	3.4
PocoMail 4.5	4	4	4	4	2	3.6

Pegasus Mail 4.41

✓ Systems Supported	
Windows Vista	
Windows XP/2000	
Windows Me	
Windows 98	
Mac	
Linux	

PocoMail 4.5

✓ Systems Supported	
Windows Vista	
Windows XP/2000	
Windows Me	
Windows 98	
Mac	
Linux	

BUYING TIPS

A final consideration: security. The vast majority of nefarious code released into the email wild is designed to attack Microsoft products. The most successful product is often the target of unscrupulous behavior, whatever the industry. You can take steps to minimize the threat, but if you're particularly risk-averse, take a look at the other email clients available.

users, as well. Pegasus has just about everything you need: address books, mailing lists, mail merge, and spell checking. There's multiple-user support for those users who share a system, but public folders allow some messages to be shared and viewed by everyone. Pegasus Mail also lets you create templates for messages.

Pegasus Mail claims to have pioneered filtering and certainly makes it a prize feature: There's general filtering, content-based filtering, and the increasingly important spam filtering. As far as security goes, Pegasus Mail supports TLS/SSL (Transport Layer Security/Secure Sockets Layer), has the requisite built-in email encryption, and plays well with third-party security solutions, too.

Another plus is its slim size (8MB) and subsequent portability. Pegasus makes no changes to the Windows Registry upon installation, which means you can tote it around on a USB drive for reading and writing email on the go.

The interface itself isn't fancy, but it's relatively intuitive. You can download a manual for Pegasus Mail and find a wealth of other information at its community Web site (community.pmail.com).

It's this community that alleviates some of the concern with the client's main sticking point: its future. In January 2007, Pegasus Mail seemed to be headed toward the place where email clients go to die; outcries from its dedicated fans have kept it alive thus far.

PocoMail 4.5

Like Pegasus and The Bat!, you might not have heard the name PocoMail before, although you may be familiar with its sister product, Barca (it provides a calendar, email, and a planner), which incorporates the email client.

PocoMail's interface is straightforward, with jazzier colors and buttons than you find in some of the free programs. Like other programs discussed here, PocoMail offers templates to ease repeated replies and supports autocomplete addressing. If you're using multiple email accounts from different servers, PocoMail pays attention to detail,

tracking which one is replying. It can separate the messages according to account, too.

Security is a strong suit, since PocoMail doesn't use Internet Explorer to preview HTML (Hypertext Markup Language) messages and instead relies on a built-in viewer. PocoMail doesn't read any scripts other than its own, either, protecting you from common email viruses. You can filter numerous ways and subscribe to RSS (Really Simple Syndication) feeds and newsgroups easily. Another treat is the right-click context menu, which offers every option available in the program, including Move To and Copy To. That's a handy feature—it's nice not to rely solely on drag and drop.

Comprehensive help files with detailed step-by-step instructions are a major plus for PocoMail. When you need additional assistance, you can email the support team or use an online form—unless you're using the trial version, of course. In that case, you need to poke around the forums, which seem to be relatively well-attended.

Open-Source Power

Overall, Windows Vista users should definitely give the new Windows Mail a try; its tight integration into the OS (operating system) provides a variety of advantages. If you run an older version of Windows, or if you've tried Windows Mail and find it's not for you, look to Thunderbird, our Smart Choice pick over the venerable Outlook Express. The popular open-source program is great right out of the box, plus it is more customizable than any other email client thanks to the vast library of extensions that add new functionality. ▌▌

BY ANNE STEYER PHELPS

mozilla Thunderbird™

November 2007
Smart Choice

Thunderbird

My Favorite Topics!

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- ☐ Miscellaneous
- ☐ Sound Cards/Interfaces
- ☐ Speakers/Headphones
- ☐ Standards & Technologies

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- ☐ Building PCs
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- ☐ Cards & Ports (USB, Firewire, Expansion cards, etc.)
- ☐ Cases/Cabinets/Towers
- ☐ Computing Accessories
- ☐ CPUs/Processors/Chip Sets
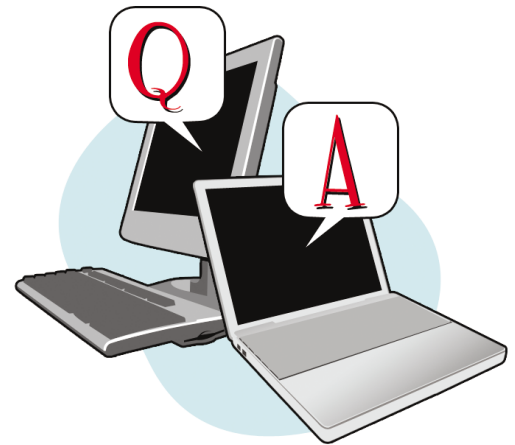
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From *Smart Computing's* Dictionary

phishing

Phishing is the act of trying to trick users into giving up personal information by making them think they're dealing with a legitimate business. A phisher sends unsolicited bulk emails to a large number of users. The email claims to be from a legitimate company, such as AOL or eBay, and claims the user's account will be suspended unless they click on the provided URL and supply the requested information (often passwords, credit card numbers, and other personal information). The URL is on a server controlled by the phisher, but its appearance is similar to that of the real site.

Scorecard

Performance	5
Ease Of Use	4
Installation	5
Documentation	4
Price	3
Overall Score	**4.2/5**

✓	Systems Supported
	Windows Vista
	Windows XP/2000
	Windows Me
	Windows 98
	Mac
	Linux

Simple Conversion

OmniPage 16

Nuance Communications released a new, full version of this industry-leading software in Standard and Professional editions. Both offer top-of-the-line OCR (optical character recognition) speed and accuracy and can convert straight text, formatted documents, and digital images to a wide array of editable, formatted document types, including Word, Excel, and PDF (Portable Document Format).

However, Professional also includes Paper-Port 11 (a digital document management and search tool) and PDF Create! 4 (a PDF generator). The Pro version also has advanced workflow capabilities, powerful mark-up features, and the ability to process and create forms. Finally, it works with Microsoft SharePoint (online team collaboration) and FTP (File Transfer Protocol) sites.

Both versions of OmniPage have so many features we cannot detail them all here. Unfortunately, neither offers a free trial period. For a comparison matrix, visit www.nuance.com/omnipage/matrix.

Powerful But Flexible

Installation of OmniPage is simple and straightforward. Once you open the program, OmniPage offers to customize your view (casual, advanced, or first-time OmniPage users). After you select a view, OmniPage presents a dialog box with an array of How-To Guides.

We started with QuickConvert (new user) view, which is easy to use. It presents a simple interface that asks the user to identify output file type, level of formatting, and location and set preferences such as whether or not to view the output (most will want to). Nevertheless, it is somewhat inflexible and feature-deficient.

Classic or Flexible views give you access to the text editor, proofreader, and other valuable tools. You can switch to these views from QuickConvert by clicking Window, but most users will likely want to learn and use an advanced view as soon as possible.

Scan It In

In QuickConvert, OmniPage may ask you to select and identify the text, graphic, and table elements (zones) with boxes so it can recognize words where appropriate and format the page to your specifications. Selection takes only a few seconds and ensures that lines of text separated by space, but in the same text grouping, stay together.

Advanced view offers these options plus On-the-fly Zoning, where OmniPage determines what the zones are. This feature works pretty well, although in our tests, it split a group of bulleted items and turned a text-based logo into gibberish.

In all cases, OmniPage converted formatted, serif text with almost no mistakes and replicated the format of the original—including close font matching—when asked to do so. In the test where we identified zones and sent the document to Word, it also put each element into the appropriate box type. It performed very poorly on script headlines, but it has the ability to learn from mistakes for fonts you use often.

When you scan a document for the first time, OmniPage will open the Scanner Setup Wizard if you haven't already set it up. It's less confusing to run the wizard beforehand. To do this, you'll have to switch to Classic or Flexible view and run it from the Tools menu.

To Buy Or Not To Buy

If you have only used free OCR products, you will be amazed at how much easier OmniPage Standard makes the process. If you do a lot of scanning or perform OCR on more than a few documents a week, OmniPage can save enough time to pay for itself in a matter of months.

Even with the bundled freebies, OmniPage Pro is a big price jump from OmniPage Standard. Nevertheless, if a company or organization with which you work uses Share-Point (and/or is willing to reimburse you for this purchase) or you process and create numerous forms or do a lot of digital editing, you may find the price of OmniPage Pro worth the advantages you will gain. ▮

BY JENNIFER FARWELL

$39.99	
Nero	
(818) 956-7551	
www.usnero.photoshow.com	
Scorecard	
Performance	3
Ease Of Use	4
Installation	1
Documentation	4
Price	4
Overall Score	**3.2/5**

✓ Systems Supported	
🪟 Windows Vista	
🪟 Windows XP/2000	
🪟 Windows Me	
🪟 Windows 98	
🍎 Mac	
🐧 Linux	

Share Photos

PhotoShow Deluxe 5

PhotoShow Deluxe 5 helps users optimize digital photographs, make "PhotoShows" (slideshows they can play or share with family and friends), and make merchandise from photos. The interface is simple, installation is quick, and the editing tools are fairly impressive for the price. But, the program has faults that detract from its overall package.

During installation, PhotoShow offers to search for image files. What it finds depends on whether you accept the defaults or create a custom destination folder. However, in neither case did it find more than a handful from thousands of stored files on our test system.

Another option for users who want to copy images to their PhotoShow folders is the Import feature. It imports from cameras, media cards, and hard drive folders, but won't find images in subfolders unless you select them. However, users with numerous images on their systems can use the Watch Folders feature to view and access (but not copy) original images in PhotoShow. (Save edits with new names if you want to keep originals intact.) This option, buried under Preferences on the Start screen, works well, if slowly.

There are four tabbed interfaces—Start (with links to tutorials and preferences), Manage (organize photos and make Photo-Shows), Make (create custom items), and Share (upload, email, or export to other formats). Oddly, there is no tab for the Edit screen—it's buried in a context menu. The editing tools are solid and include basics, special effect filters, and touch-up tools. From this screen, you make 90% of the enhancements to your PhotoShows. The tutorials help you through this; there are no wizards.

With a little effort you can work around the shortcomings. A 15-day free trial will let you decide if the program is worth it. ▮▮

BY JENNIFER FARWELL

Free	
Agnitum	
www.agnitum.com	
www.agnitum.com/support/contact.php	
Scorecard	
Performance	3
Ease Of Use	3
Installation	2
Documentation	4
Price	5
Overall Score	**3.4/5**

✓ Systems Supported	
🪟 Windows Vista	
🪟 Windows XP/2000	
🪟 Windows Me	
🪟 Windows 98	
🍎 Mac	
🐧 Linux	

Guard Your Mail

Spam Terrier

Spam Terrier is a spam-killing utility that appears as a useful toolbar in Microsoft Outlook or Outlook Express. To pinpoint spam, it uses a combination of training sessions you conduct and information you feed it during operation to create a personal spam database.

After a very fast installation, you're required to register to receive a product ID key, which Agnitum emails to you. (Check your Junk folder for this—ironically, that's where our email message ended up.) Once you enter the key and open Outlook or Outlook Express, Spam Terrier will pop up and ask if you want to get started. If you are not ready to begin, you can initiate training at any time by clicking the down arrow next to Agnitum Spam Terrier on the toolbar.

Spam Terrier uses a Bayesian filter, which employs probability algorithms to determine if new messages replicate the characteristics of prior spam. The more you train it (both initially and by identifying false positives and negatives), the more effective it will become. You can train it by identifying existing folders that you know do or do not contain spam, structure it by creating blacklists and whitelists, or let it roll by having it scan folders you think contain spam.
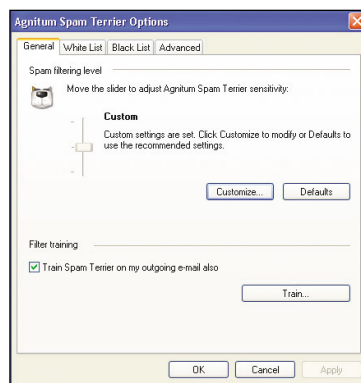
Spam Terrier starts out without any built-in spam flags, which lets you specify exactly what you consider spam. It also means a delay before it is of any real value, especially if you don't have a lot of spam to feed it. Therefore, plan to keep using Outlook or Outlook Express' built-in junk filters until it acquires enough data to become competent. ▮▮

BY JENNIFER FARWELL

Staff Picks

Our Experts Pick The Best Hardware

ViewSonic VX1932wm

We recently got our hands on the ViewSonic VX1932wm and put it through its paces. We used DisplayMate Multimedia Edition to test this LCD's visual performance, and despite some minor whiteness oversaturation, the color and grayscale performance was excellent. We also noticed that 6-point serif and sans serif fonts against both black and white backgrounds were very readable. We also played the PC game S.T.A.L.K.E.R. and watched video clips of "The Matrix" and "Apocalypto" to gauge the display's color accuracy and response time. ViewSonic's VX1932wm showed no noticeable ghosting or streaking and realistic colors, though there was some color banding during fast-paced video sequences.

The VX1932wm employs contrast ratio-boosting technology to improve image quality. ViewSonic's display also comes with built-in stereo speakers at the base of the panel, and although you won't be blown away by the sound quality, the speakers did outperform those of a similar widescreen LCD we recently tested.

The unit's silver-and-black base lets you tilt the panel to your best viewing angle and blends nicely with the display's similarly-colored frame. Supported inputs include DVI (Digital Visual Interface), VGA (Video Graphics Array), and audio. The OSD (on-screen display) buttons reside above the speakers and provide access to a colorful and easy-to-navigate menu.

You'd be hard pressed to find a widescreen LCD capable of the ViewSonic VX1932wm's near CRT (cathode-ray tube)-quality color accuracy for less than $300. ∥

VX1932wm
$299
ViewSonic
(800) 688-6688
www.viewsonic.com

BY ANDREW LEIBMAN

COMPUTERS		
Desktops <= $1,000 Pavilion Slimline s3220n Series $699.99	Josh HP www.hp.com	*This ultra-compact PC will save space on your desk and in your wallet. It has a dual-core processor and an Ethernet port.*
Desktops > $1,000 Mach V $8,850 (as configured)	Josh Falcon Northwest www.falcon-nw.com	*Our Mach V sports a Red Rain paint scheme (an option when you customize online) that will knock your socks off. You'll think that water is on the system until you touch its realistic paintjob.*
Notebooks <= $1,500 Compaq 6720s (RM323UT) $799	Jennifer HP www.hp.com	*This is a great notebook for an even better price. For less than $800, you get an Intel Core 2 Duo processor, 1GB of RAM, a 120GB hard drive, and more.*
Notebooks > $1,500 Area-51 m9750 $2,599	Jennifer Alienware www.alienware.com	*Upgrade with a solid-state drive that uses no moving parts and you'll be ready for computing on the go. A solid-state drive is quieter, consumes less power, and finds data more quickly than traditional spinning hard drives.*
HANDHELDS		
Handhelds & PDAs (personal digital assistants) Mogul by HTC $299.99 (with discounts and contract)	Jennifer Sprint www.sprint.com	*This upgrade to the PPC-6700 operates on Windows Mobile 6. It also has an internal antenna, 2MP (megapixel) camera, and wireless high-speed data connectivity.*
INPUT DEVICES		
Keyboards Desktop Wave $49.99	Blaine Logitech www.logitech.com	*With a U-shaped, curved layout and "wave" keys that have various heights, Logitech's Wave Desktop is a very affordable, ergonomic keyboard option.*
Mice/Trackballs/Trackpads MX Air Rechargeable Cordless Mouse $149.99	Blaine Logitech www.logitech.com	*Thin, glossy black, and extremely elegant, the MX Air is as much of a looker as it is an exceptional performer. We love this mouse.*
MONITORS/DISPLAYS		
CRTs (cathode-ray tubes) E90fB $219	Andrew ViewSonic www.viewsonic.com	*From what we've heard, if you're looking for a good quality CRT that won't bust your budget, the 19-inch E90fB is an excellent choice.*
LCDs <= 19 inches VX1932wm $259	Andrew ViewSonic www.viewsonic.com	*ViewSonic's 19-inch LCD performed well in our visual-quality benchmarks, displaying excellent color and grayscale gradations. The built-in speakers are also a bonus for users in cramped spaces.*
LCDs > 19 inches FlexScan S2111W $1,099	Andrew Eizo www.eizo.com	*Eizo's 20.1-inch LCD is a bit on the pricey side, but in a recent roundup of LCDs (published in Smart Computing's sister magazine CPU), its image-quality ranked second to none.*

HP Pavilion Slimline s3220n Series

If you're looking for a new, compact PC, I recommend the HP's Pavilion Slimline Series PCs. At only 4.21 inches wide, the Pavilion Slimline s3220n features components you'll find in bigger systems, including a media card reader and a DVD±RW.

I tested an s3020n Series system, but you'll find that HP has refreshed this line with the s3220n model (with slightly newer components) by the time you read this. I already like the s3020n, which boasts a dual-core AMD Athlon 64 X2 3800+ processor, 1GB of memory, and a 250GB hard drive. The system also has an Ethernet port, a dial-up modem, and built-in wireless connectivity, all in a compact case. ▮

Pavilion Slimline s3220n Series
$699.99
HP
(888) 999-4747
www.hp.com

BY JOSHUA GULICK

PRINTERS

Inkjet <= $150 Stylus Photo R380 $129.99	Kylee Epson www.epson.com	*This printer features a 3.5-inch color LCD for previewing photos and navigating menus. You can also print directly to printable CDs and DVDs.*
Inkjet > $150 Pixma iP6700D $179.99	Kylee Canon www.usa.canon.com	*With its 3.5-inch color LCD, you can preview your photos before you print. In addition, the iP6700D supports double-sided printing.*
Laser <= $200 PagePro 1400W $119.99	Nathan Konica Minolta www.konicaminolta.us	*This affordable monochrome laser weighs only 15.6 pounds (with the toner cartridge) and produces monochrome prints at 17ppm (pages per minute).*
Laser $200 to $500 1320c $299.99	Nathan Dell www.dell.com	*This color laser churns out 12ppm in color and uses the Dell Toner Management System to indicate when a toner cartridge is low, so you can buy a replacement cartridge before you run out of toner.*
Laser > $500 LaserJet 3600n $699.99	Nathan HP www.hp.com	*With a 360MHz processor and a 17ppm color print speed, you'll be able to quickly generate color flyers, documents, and marketing materials.*
MFDs (multifunction devices) Stylus Photo RX580 $149.99	Kylee Epson www.epson.com	*This MFD is easy to set up, easy to use with its 2.5-inch LCD, and features Epson's new Claria inks that are designed to keep prints color-rich, even as time passes.*

STORAGE

Flash Memory & Portable Flash Survivor GT 8GB $129.99	Marty Corsair www.corsairmemory.com	*It's an 8GB instead of a 16GB model, but it's blazingly fast and extremely rugged. It has 256-bit AES (Advanced Encryption Standard) and a 10-year warranty, too.*
CD & DVD Drives LH-20A1H About $40	Marty Lite-On us.liteonit.com	*20X DVD±R writing is the highlight of this LightScribe-capable burner.*
Hard Drives Deskstar 7K1000 1TB $399	Marty Hitachi www.hitachigst.com	*The first terabyte (1,000GB) hard drive is almost as speedy as a Western Digital Raptor, but with nearly seven times the capacity. Also available with 750GB.*

VIDEO/PHOTO

Digital Camcorders < $500 GR-D750 $249.99	Nathan JVC www.jvc.com	*This MiniDV digital camcorder can also capture still pictures and function as a Web cam.*
Digital Camcorders > $500 HDR-CX7 $1,199.99	Nathan Sony www.sony.com	*This high-definition digital camcorder features a 2.7-inch widescreen LCD, records to Memory Stick Pro Duo flash cards, and includes optical image stabilization.*
Digital Still Cameras - Point & Shoot PowerShot A640 $399	Kylee Canon www.usa.canon.com	*This 10MP camera features 4X optical zoom and a 2.5-inch LCD. This is an ideal camera for those who prefer to use AA batteries.*
Digital Still Cameras - Adv./Prosumer D40 D-SLR About $550	Kylee Nikon www.nikonusa.com	*With the release of the new D40x, prices of the D40 kit (including a lens) have dropped dramatically. You can easily find this camera for less than $500, making this D-SLR an incredible value.*
Graphics Cards <= $150 ATI Radeon HD 2600 XT $149	Andrew AMD ati.amd.com	*The Radeon HD 2600 XT offers great midrange performance, even in Vista, not to mention it's DirectX 10-capable for playing new and upcoming games.*
Graphics Cards > $150 GeForce 8600 GTS OC2 $229.99	Andrew BFG www.bfgtech.com	*BFG's newest overclocked GeForce 8600 gets some new duds in the form of a custom cooler and, as a result, manages to perform better than ever in games and 3D-intensive applications.*

Give Your Home (Computer) A Makeover

A common theme of the many home-improvement shows on cable TV these days is how small changes—things like fresh paint, minor upgrades, or even just reducing clutter—can have a big impact.

The same principles can be used to freshen up a Windows XP system (maybe it's because it often seems like we "live" on our computers). We'll take a look at a few ways to improve both WinXP's look and feel and its usefulness—first by organizing the Windows Desktop, and then by enhancing its user interface courtesy of some free Microsoft utilities.

First, Tidy Up

Many of us have a bad habit of filling the Desktop with countless program and document shortcuts, and over time this can make finding a particular item more difficult as you must visually scan through an increasingly messy sea of icons. WinXP's Desktop Cleanup Wizard offers an easy way to reduce some of that clutter. Although this utility should be set to run automatically every 60 days, you can run it manually any time you want to tidy things up on your Desktop.

To run the wizard, right-click the Desktop, click Properties, and then select the Desktop tab. Then click the Customize Desktop button and finally the Clean Desktop Now button.

The Desktop Cleanup Wizard works under the assumption that only a small fraction of Desktop shortcuts are frequently used, while most are rarely if ever accessed. After launching the wizard, click Next, and you'll see a list of all the shortcuts on your Desktop along with the date that each was last used.

If a shortcut hasn't been used in the past 60 days—or has never been used—there will be a check next to it. When you complete the wizard, shortcuts to any checked items will be moved into a single folder on the Desktop called Unused Desktop Shortcuts. To keep a particular shortcut from being moved, just remove the check from the box.
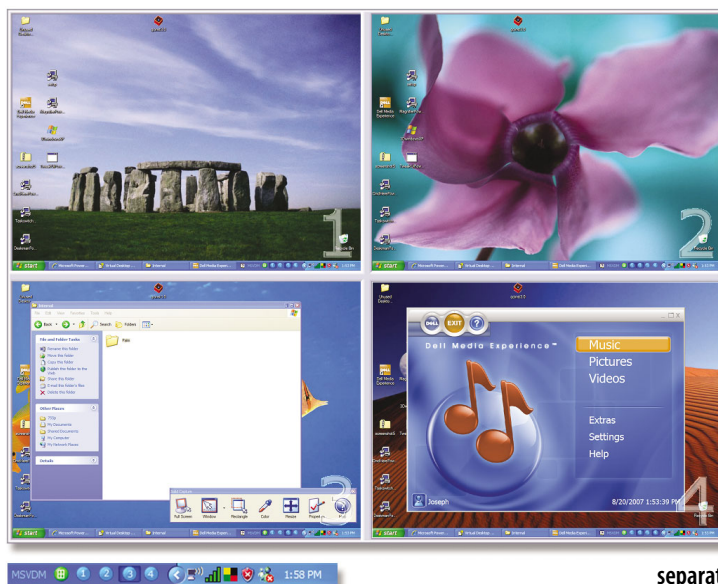
Then, Spruce Up

Now that we've got cleanup out of the way, we'll turn our attention to some practical interface improvements. Each of the items listed below are part of Microsoft's PowerToys for Windows XP, a collection of individual utilities that can be downloaded from snipurl.com/1q1jw.

Have you ever gone to the optometrist thinking your vision was pretty good and then been surprised at how much better things could look with the right lens in front of your eyes? For many, Microsoft's **ClearType Tuner** will provide a similar effect. ClearType is a Microsoft technology that's designed to enhance the

The Virtual Desktop Manager allows you to maintain four separate Desktops and quickly switch between them via the Taskbar.

way fonts are rendered in Windows, especially when using an LCD (though you will probably still see a noticeable improvement even with a CRT [cathode-ray tube] monitor).

When you fire up the ClearType Tuner, you'll see a Turn On ClearType check box with a paragraph of sample text below it. Click the box, and you should immediately see an improvement in your text making it darker, smoother, and better defined. Then click the Start Wizard button, and you'll be taken through some comparison screens that will prompt you to choose which text sample looks best to you. (See? Just like at the eye doctor.) The next time you want to use the ClearType Tuner, you'll find it in the Control Panel.

Every so often, you may need to access the WinXP command prompt, and that's easy enough to do from the Start menu by launching cmd.exe via the Run command. But when that command prompt window opens, it automatically puts you into the home folder for the logged-in user account—(such as C:\Documents And Settings\Joseph). If the files you need to work with are in some other folder, you'll need to execute a series of cumbersome "cd" (change directory) commands to get there.

The **Open Command Window Here** PowerToy solves this problem nicely. Install it, and when you select a folder within My Computer or Windows Explorer, the right-click context menu will have a new Open Command Window Here option. Select it and your command prompt will open into the currently selected folder, potentially saving you lots of navigational hassle. This new option will also be available with folder shortcuts on the Desktop.

Tweak UI is the granddaddy of the PowerToys, because it lets you, well, tweak WinXP's user interface. Be careful when downloading Tweak UI, because there are actually two similar links for it on the PowerToys page. The second link is only for systems using Intel's Itanium processor (found in some servers and high-end workstations). The majority of users will want the first link. There are countless configuration options within Tweak UI, and they're presented in a hierarchical list form so are pretty easy to explore. Here we'll highlight a few.

You know how annoying it can be when you're working in an application only to have another one rudely pop up in the middle of what you're doing? Go to General/Focus to customize Windows' behavior in this situation. Make sure Prevent Applications From Stealing Focus is checked. You'll also be able to specify how many times you want the program's Taskbar entry to flash in order to get your attention.

Under Explorer/Thumbnails, you can change the default size (96 pixels square) for the display of image thumbnails. A larger size (say, 128 pixels) will make thumbnails easier to see, and a smaller number will let you fit a lot more in a window.

If you'd like to keep a user account on your system but don't necessarily want it to appear on the WinXP Welcome screen, click Logon and then clear the check mark next to any account you want to hide. Also, if you select Unread Mail (under Logon), you can adjust how the Welcome screen displays information about unread mail messages, or whether it includes it at all.

In Windows, as in real estate, you can always benefit from space to help keep yourself organized. One way to get it in Windows is by using multiple monitors, but adding monitors can get pricey, and they still take up space on your real-world desktop. A more economical and efficient way to generate usable Windows Desktop space is with the **Virtual Desktop Manager**.

The ClearType Tuner can help make on-screen text easier to read especially if you're using an LCD monitor.

After installation, you can enable it by right-clicking on the Taskbar, highlighting Toolbars, and selecting Desktop Manager. Once Virtual Desktop Manager is active, you'll see a series of new buttons on your Taskbar. The ones labeled 1 through 4 each represent an independent virtual Desktop. You can use these buttons to easily switch between Desktops, keeping different applications on each and organizing them as you see fit. Whenever you want to see the big picture, just click the green button with the window on it. This will divide your screen into numbered quadrants (one for each virtual Desktop)—click on the one you want to work with, and it will expand to fill the screen.

You can even customize each virtual Desktop with its own background wallpaper. To do so, don't use the standard method—the Desktop tab within Display Properties—because any changes you make there won't stick. Instead, right-click MSVDM within the Taskbar and then select Configure Desktop Images, which will allow you to specify a different background image for each Desktop.

You may notice that open applications displayed on the Taskbar remain the same as you switch between different Desktops. This behavior is normal and is designed to make it easier for you to move applications across Desktops using ALT-TAB. If you'd prefer to keep each Desktop truly separate, right-click MSVDM and deselect the Shared Desktops option.

By the way, if you'd rather switch between Desktops with the keyboard instead of the mouse, the Configure Shortcut Keys option within the same menu will let you define your own custom keystroke combination for each one. ❚❚

Windows Vista

What's Missing & Where To Find It

Shortly after Microsoft released Windows XP on Oct. 25, 2001, devoted users of Windows 98/2000 (and to a lesser degree, Windows Me) howled they would never give up their beloved OS (operating system). Indeed, it took several years, but WinXP finally won over most of the Microsoft world. Now, with WinXP successor Windows Vista approaching its first birthday (Microsoft released it to volume licensees in November 2007), many customers are screaming they'll never part with their old pal, WinXP.

Indeed, a study by Information-Week, conducted in April 2007, indicated 30% of businesses currently had no plans to upgrade to Vista, ever. Another 27% said they were at least a year away. According to a Harris Poll in March, the upgrade numbers for consumers were even lower—only 12% planned to upgrade within a year.

Fans of Microsoft Pinball (shown, in WinXP) will need to look elsewhere for their thrills.

Among Vista adopters, many complain that software and hardware that worked beautifully under WinXP behaves erratically—if at all. Furthermore, users are discovering that despite Vista's many new features, it left some favorite WinXP functions in the dust. So what won't you find in Vista by default, and can you obtain it any other way?

Continue on, dear reader, and we'll give you the scoop. Note that for our tests, we used Vista Home Premium, the version of Vista we think you will most likely purchase or already own. However, we'll also point out where functionality in our examples is even further restricted in Vista Home Basic. For a comparison of editions and more information on the severely challenged Home Basic version, visit tinyurl.com/3843r3.

On The Move

Three features missing in Vista affect how you exchange information with the outside world. These are Windows XP Fax Services, Windows Messenger, and support for the Internet over FireWire.

Just the fax. Whereas Microsoft shipped the WinXP CD with a fax utility (an optional install), in Vista Home Premium there are no fax capabilities. To use Vista's new fax utility, Windows Fax And Scan, you'll need to upgrade to Home Ultimate or purchase a new Business, Ultimate, or Enterprise edition.

Users are giving Fax And Scan high marks, but it's at least an extra $40 to $100 if you upgrade to Ultimate. Companies are slowly releasing third-party, Vista-compatible fax programs. We found RKS Fax ($19.95; www.rkssoftware.com), which is affordable for consumers.

Shoot the Messenger. Fans of WinXP's built-in instant messaging client, Windows Messenger (similar to MSN Messenger), will be disappointed. Windows Vista has eliminated it in all versions. The workaround for this one is easy, though. Just download another instant message client. In 2006, MSN Messenger morphed into Windows Live Messenger (get.live.com/messenger), and it now supports Yahoo! Messenger users, as well.

Disconnected. If you connect your home network PCs via FireWire (rare for Windows users), you will not be able to share an Internet connection. Vista supports the FireWire technology only for connections between a PC and other devices. To gain Internet access for all your PCs on a shared connection, you'll have to switch your network to Ethernet or Wi-Fi.

Sound & Action

Windows Vista comes with an array of new games, but it has done away with some old favorites. Furthermore, there are subtle changes in the way some programs work with audio files.

Tilt! Pinball wizards who love 3D Pinball Space Cadet (also called Microsoft Pinball) can head for the nearest game room. It's gone with Vista, as are the links to Hearts, Spades, and other games on MSN Gaming Zone. However, you'll pick up some new games in Vista, including Mahjong Titans and Spider Solitaire. At press time, you could download Pinball at tinyurl.com/2bqhkz. That's not a Microsoft

site, so we cannot guarantee if the game will work or how long it will be posted there.

Listen to the music. Vista comes preloaded with Windows Media Player 11, which looks very different from previous versions. In particular, the ability to view your music in a line-by-line playlist appears to be missing. Instead, you select one of the many sort criteria (such as title or release year), and WMP 11 organizes your titles and presents them in one of several graphical views. (These vary based on the sort criterion you select.)

This space-hogging approach may frustrate users with large music libraries. WMP 11 offers a workaround for this problem, but you won't see the option unless you look closely, and it's not what it should be. In WMP 11, click the Down arrow immediately to the left of the Search dialog box at the top right of the interface. You'll see three options—Icon, Tile, and Detail. Select Detail to display your library in a list.

Unfortunately, this view works very poorly when you sort by certain criteria. For example, the Year sort criterion depends on thumbnails of each album's art to identify it. Switch to Detail view—which eliminates the thumbnails—and you're left with nothing but a long list of years accompanied by a song count, run time, and rating, but no album title or artist.

You'll discover an equally frustrating but unrelated shortcoming with the way Vista handles audio files in Sound Recorder. Except for the European versions, Vista no longer supports the WAV format—only Windows Media Audio. You'll need a separate recorder program if you want to record WAV format files in Vista. Easy Hi-Q Recorder ($29.95; roemersoftware.com) is one; there are many others.

Cut Your Productivity

Much to our dismay, in Home Premium, Vista crippled some features that enhance your computing productivity. One operation—backup—we consider crucial to a blissful partnership with your PC.

Back 'er up. Microsoft eliminated WinXP's old Backup And Restore Wizard (an outgrowth of MS Backup) and replaced it with two new Backup features. Business, Ultimate, and Enterprise versions of Vista enjoy a comprehensive backup utility, Complete PC Backup. In Home Premium, you
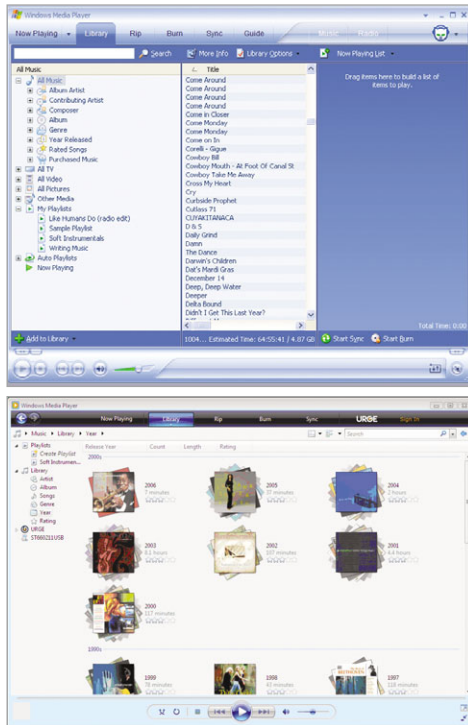
In Windows Media Player 11, Microsoft eliminated the comprehensive, compact (and useful) Library interface.

have only Automatic Backup, which archives personal files and data, but not system files, programs, user profiles, or files stores on FAT (file allocation table)-formatted drives.

Automatic Backup does let you establish backup schedules or back up over a network (Vista Home Basic lacks even these features). However, in addition to the restrictions stated above, while you can choose categories of data files to archive, you cannot select specific folders or files.

Not in sync. With all versions of Vista, users no longer sync mobile devices using that oldie-but-goodie, ActiveSync. Instead, all versions have a nifty new component, Windows Mobile Device Center, that helps manage and sync with external devices, including mobile phones, media players, and more.

However, not all devices work or can access all the features of Windows Mobile Device Center. Furthermore, retail versions of Vista ship without it. If you see a small, pop-up window when you connect a mobile device to a Vista PC, run Windows Update (with the device connected), which should upgrade you to Windows Mobile Device Center. If it does not, you can download the latest version (Windows Mobile Device Center 6.1, which supports Windows Mobile 6 devices) at tinyurl.com/yercjr. You'll also find troubleshooting information, including notes about the demise of ActiveSync, and device support details at this site.

Final Tidbits

The omissions we discuss above are the main ones most users will notice. There are other, minor, missing pieces but most won't affect your transition from WinXP to Vista. One that might confuse you at first is the Power Management feature. Vista offers a new mode, Hybrid Sleep, which combines the functions of Standby and Hibernation under the common banner of Sleep. Sleep mode saves information to the hibernation file. It then transitions the PC into Standby mode (with its fast-resume benefit) and then to Hibernation mode after a specified time (the default is three hours). If you want a direct Hibernate mode, refer to Knowledge Base article 929658 (support.microsoft.com/kb/929658/en-us) for further assistance. ∎

BY JENNIFER FARWELL

Top 10 Computing Myths

Busting Myths New & Old

Whether it's buying into a technological conspiracy theory or applying old, outdated principles when using a new computer, many PC users believe some of the myths floating around about how to properly use and manage a computer. While some of these fallacies were built on some small foundation of truth, others are simply misconceptions. Busting just a few myths could mean saving time and energy. Here are some of our favorites.

1. You must shut down your computer when you are finished using it.

This debate is long-running, and in the past, both sides have offered legitimate arguments. Today, it's more of a personal preference than a rule. It's been said that turning the computer off after every use stresses out the hard drive and other components. A decade ago, that was true. Today, the typical PC is able to handle around 40,000 on/off cycles, a number not likely to be reached before the computer becomes outdated or wears down for other reasons.

You will, however, save energy if you shut down each night or after each use. Society places a heavy emphasis on energy conservation, and this is a good way to join the movement with minimal effort. If you want to avoid a lengthy bootup process, energy savings can also be achieved by setting the computer to Standby or Hibernate. Most PCs will automatically switch to one of these modes when left untouched for a specified period of time. While energy will be conserved in these modes, the only way to be sure a computer is using no energy at all is to shut it down and unplug it.

2. You need to drain your laptop battery completely in order to achieve the maximum charge.

Laptops used to operate on nickel-cadmium batteries that would often lose their ability to charge to maximum capacity if repeatedly run down to a certain level. The battery would "remember" that level and return to it during later charge cycles. Because of this "memory effect" or "lazy battery effect," experts emphasized the need to drain the battery every month or so. The lithium-ion batteries widely used today are not affected by this; therefore, there is no need to run them down.

3. If you have a lithium-ion battery, your laptop could spontaneously combust at any moment.

With all the hysteria surrounding recent massive recalls of lithium-ion batteries, some laptop users have been left confused and worried about these mysteriously exploding batteries. Though the battery that comes with your laptop can be susceptible to combustion, it's typically replacement batteries that are the most dangerous.

Lithium-ion batteries require a very meticulous production process, and when quality hasn't been regulated, runaway chemical reactions can occur. Poor-quality batteries also require a lower-current charge. When people apply the same charger they used with their higher-quality battery, the new low-quality battery could overheat and combust. But if

your battery is from a respectable manufacturer, your risk is very low.

4. Shopping with your credit card on-line is risky.

Using a credit card is never 100% safe. That said, shopping online with your credit card is no more risky (and may, in fact, be safer) than letting your waiter whisk it away at the end of a meal.

PayPal, for example, uses a sophisticated encrypting system to store information on its servers. Instead of giving information to the seller, the buyer uses an email address as identification to make the purchase so the merchant has no access to any information. The payment then comes from PayPal instead of from the buyer. Additionally, many credit card companies have zero-liability policies to protect you from identity theft. Check out your credit card's Web site to see what kind of protection you are receiving to be sure.

5. Antivirus software companies create viruses to sell more product.

Although it makes a great conspiracy theory, this is completely false. Genevieve Haldeman, vice president of corporate communications at Symantec, helped to squash this myth, saying that although people still ask her about this theory in jest, most people now understand that viruses are created by cyber criminals. "I've had people jokingly ask me that question, and I assure them in no uncertain terms that there is no such thing," Haldeman said. "We have more than enough work to do without creating more work. We actually have a policy as a company against hiring former virus writers. This is very serious business, and if you look today at those individuals who are perpetrating these crimes, they are out for monetary gain . . . so what has happened is the people who are perpetrating cyber crime today are those people potentially in organized crime who are looking to steal credit card numbers, Social

Security numbers, and other personal information that they can use for significant financial gain. So I assure you that this has nothing to do with reputable companies like Symantec."

6. Freeware and shareware products are not as good as commercial software.

It's easy—and often correct—to assume that you only get what you pay for. There are, however, wonderfully useful and safe freeware and shareware applications available. These products are generally good because the source code is often available to all users, making it quicker and easier to identify and fix bugs. Also,
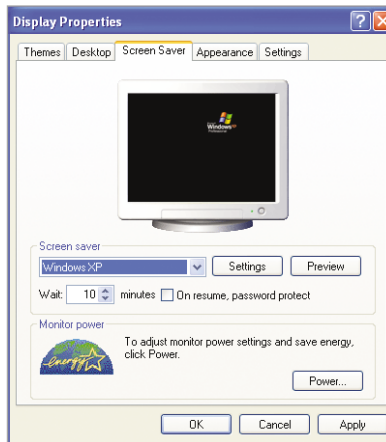
You can choose a screen saver under Display Properties, but it's not necessary for protection against phosphor burn.

shareware and freeware applications are commonly made by developers dedicated to allowing anyone the freedom to make the most of their computing experiences.

One example, Ad-Aware, is a widely used and well-received free antispyware program. Lavasoft, which produces Ad-Aware, declares on its Web site, "We believe that every individual, regardless of economic status or geographic location, should have the power to control their individual privacy and security." Many of the writers of freeware and shareware express similar reasons for why they choose to write freeware and

shareware and not commercial software. The Association of Shareware Professionals was created to promote the idea that shareware is a viable alternative to conventional retail software.

There are also many benefits to choosing freeware and shareware products over commercial software. It's widely available on the Internet for updates and quick installations. Plus, you aren't wasting money if you happen to be unhappy with the product. With freeware and shareware, if you are dissatisfied with the product, you can simply uninstall the application and try something different.

7. If you don't use a screen saver, you will ruin your monitor.

If you have a newer LCD computer monitor, then no, you don't need a screen saver because it won't do much for you. Screen savers were originally designed to protect the monochrome monitors that are no longer commonly used. These monitors suffered from phosphor burn, in which the image would leave traces of itself on the monitor if a screen saver weren't used. Today, screen savers can be fun, but they're unnecessary in terms of protecting your display.

8. Antivirus software and firewalls are 100% effective.

Each one is a great start, and combined they are even better, but the two don't comprise an infallible system. You have to keep your security system updated by checking for updates on a weekly or daily basis. New viruses are always being created, and it might not take very long for them to find their way onto your hard drive. Your best defense against cyber crime is to keep your security system up-to-date with all the information available to it.

9. If I erase all of my files and empty the Recycle Bin, my computer is safe to be disposed of.

Recovering deleted files is easier than you might think. Many assume that once the Recycle Bin or Trash Can

Lavasoft's Ad-Aware boasts over 250 million downloads worldwide, making it one of the most trusted freeware programs on the Web.

is emptied, the information is gone forever. Doing this will only delete the link to the file, making it inaccessible from the Desktop. The data itself still resides on your hard drive.

Whenever information is stored on the computer, it is stored in clusters of information in the FAT (file allocation table) system on the hard drive. Software designed to read and recover these data clusters from your hard drive is widely available. If you are getting rid of your PC—especially if it is going to someone else—consider software that will permanently erase all the information on the hard drive. There are several commercial, freeware, and shareware products available to buy or download that will do this.

10. Microsoft products are not secure.

Microsoft products are no more or less secure than any other vendor's products. Hackers tend to pick on Windows operating systems because of their popularity. Windows opens the door to more computers, more users, and therefore, more information for cyber criminals to prey on.

According to a March 2007 Symantec study, Microsoft is actually doing the best out of five popular operating systems tested when it comes to fixing security holes. Symantec studied the five operating systems over a six-month period and found that not only did Microsoft have the fewest number of patches, but it was also the quickest to develop those patches.

Busted!

As technology changes and evolves, there will undoubtedly be more myths to thwart in the future. But for now, you can more effectively and efficiently handle your computer now that a few of these myths have been dispelled. ▐▌

BY TESSA WARNER BRENEMAN

Microsoft has gotten a bad reputation because of the number of cyber criminals that target Windows operating systems, but it's also the quickest to find and fix security holes.
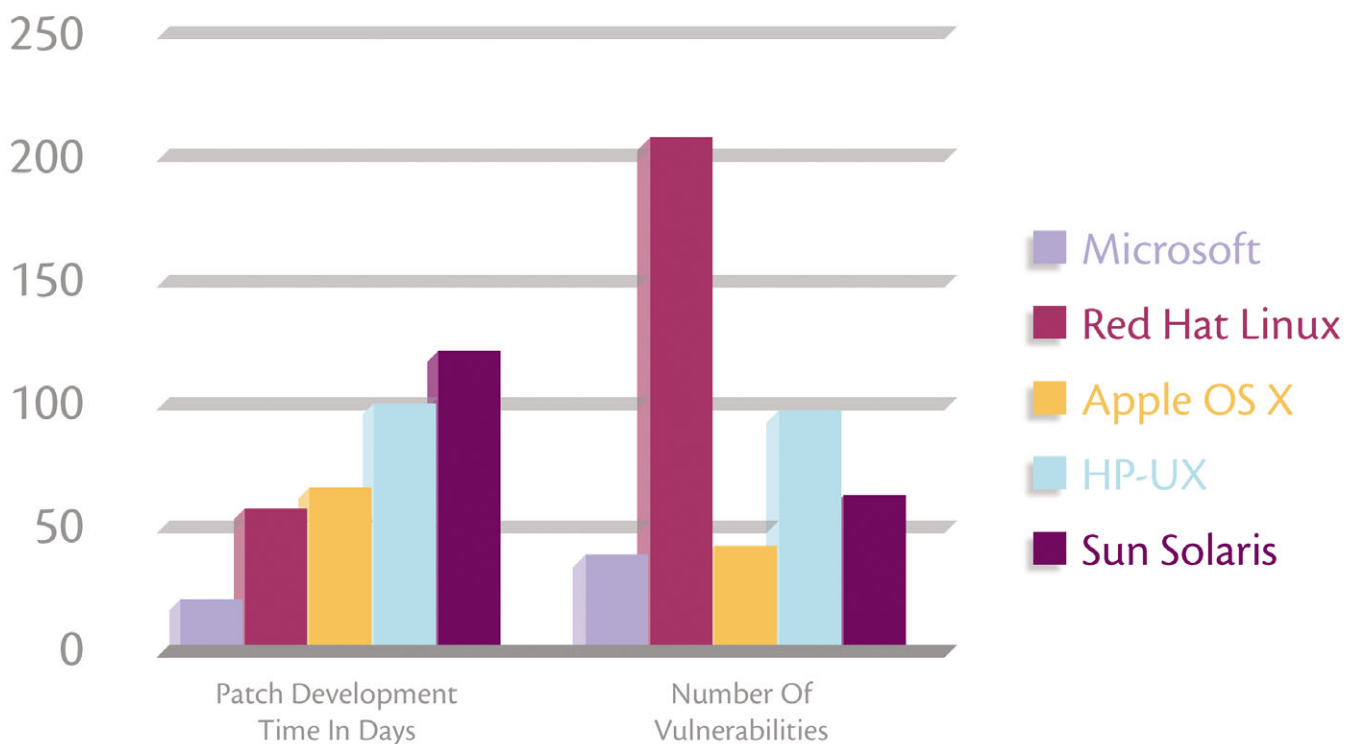
Under Lock & Key

How Secure Is Your Password?

Y ou wouldn't stop a stranger on the street and give him the login information to your online banking account. Likewise, you shouldn't use an easy-to-guess password to secure your digital information, such as your online credit card account or email account. Think of it this way: Passwords are the only things that stand between your personal information and an intruder's eyes. Having a password that's easy to crack puts your information at risk of being seen by strangers. For this reason, it's absolutely critical that you protect the login names and passwords that provide access to your private information, such as your online banking account, online credit card accounts, favorite shopping sites, and even your email.

What To Protect

Of course, some accounts and services may require greater security than others may require. Paul Kocher, president of Cryptography Research, notes: "For services such as PayPal and brokerage accounts where attackers have a clear financial incentive to compromise accounts, strong passwords are extremely important." Other passwords, such as a login to a hobby-related message board, may not be as much of a target for attackers.

Although the password to your email account may seem innocent enough, it is more important than it may appear. You may think the only messages in your inbox are a few cute forwards and a casual 'hello' from a friend, but consider this: If your favorite shopping site has your email address and you happen to forget the password for the site, the site may offer to send your password to your email address. When it sends this message, your inbox will have that secret information. Worse yet, if the password you use at that shopping site is the same password you use with your online banking account, a breach of security could give an attacker access to multiple accounts and result in greater damage.

Keep in mind that email travels through various computers and servers before it reaches your inbox. As a result, it's not secure. If you need to retrieve login information or give login information to someone else, it's best to avoid email as a means of communicating that information. If email is the only available route, the best practice is to change the password for the account corresponding to that login information right away.

Be Strong

Sadly, unauthorized access into your account can come from both people you know and people you don't know. Using strong passwords is quite possibly the best way to protect your information from being compromised. According to Kocher, "A strong password is one that cannot be guessed, even using a computer that can rapidly test guesses."

"Using common data such as your name, family members' names, hometown, your birth date, or any word that can be found in the dictionary

makes your password less secure. (Hackers often have programs that will try every word in the dictionary in order to crack your password.)" notes Christopher Young, vice president and general manager of the Consumer and Access Solutions Group at RSA, the Security Division of EMC.

Perhaps just as important as creating a strong password is creating a password that you can remember so that you don't have to write it down. Young mentions, "People make mistakes in both selecting passwords, but also in how they use them and store them." Storing a list of passwords on your computer, jotting down a password and keeping it on or near your computer, or using the same passwords for multiple purposes are all faults people make in using and storing passwords, according to Young.

Create A Strong Password

Now that you know the importance of using a strong password, let's look at some of the ways to create memorable, yet secure, passwords. Andrew Storms, director of Security Operations for nCircle, says, "The general rules for picking a strong computer password are [to use] eight characters which need to include numbers, letters, [and] uppercase letters with symbols."

You can still use familiar words or phrases but do so with variations. For example, to create a strong password, Young says, "Think of a phrase or a poem and convert the first letters of each word in the phrase into your password. For example, 'How much wood could a woodchuck chuck' would become HmWc@wC." Young brings up another good point: Substitute common letters for symbols or numbers. For example, *A* could become 4, and *a* could become @. Other substitutions include using 8 for *b* or *B* and using 1 in place of the letter *l*. In addition, it's a good idea to alternate between uppercase and lowercase letters, as Young did in his example.

Diceware

In addition to some of the techniques mentioned, there are many ways to create a secure password. Probably one of the most secure passwords is something that is completely random. However, a random password is also hard to remember.

A technique called Diceware (www.diceware.com) offers another way to create a secure password. As its name alludes, Diceware uses dice rolls to help create a password. In short, you roll dice multiple times and then look
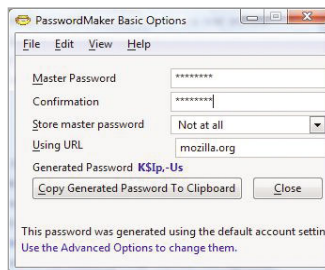
As an add-on to Firefox, PasswordMaker lets you create secure passwords for different sites.

up words on a special list called the Diceware Word List that correspond to the numbers you rolled. By rolling the dice multiple times and combining the words corresponding to multiple dice roll iterations, you'll create a secure password.

Although secure, some of the passwords you create using Diceware would be very hard to remember. For example, one password created using Diceware is cleftcamsynodlacyyr. Because passwords such as this are sometimes as hard to remember as random characters, you may not gain anything by using Diceware.

Change It Frequently

In addition to using strong passwords, it's wise to change your password periodically. As Storms points out, "If your home computer isn't connected to the Internet and it's in a locked house, you may never need to

change the password. On the other hand, [if you are] using a service like that of Gmail or Yahoo! that can be reached from any computer on the Internet, then ideally you should change that password at least once every three months."

Software To The Rescue

Although completely random strings of letters, numerals, and characters create extremely secure passwords, they're also easy to forget. If you record your password for safekeeping, do so in a secure manner. If you write the password on a piece of paper, keep it in a secure place away from your computer where others won't find it.

For people who prefer a more technologically advanced way of remembering their passwords, numerous software is available. When looking for a program to store your passwords, Storms recommends: "Be sure the software comes from a reputable vendor, and the software encrypts the information using good encryption algorithms. Looks for products that use AES [Advanced Encryption Standard] encryption."

Kocher recommends Password Safe (free; passwordsafe.sourceforge.net) as one option for recording your passwords using software. Bill Stackpole, professor of networking, security, and systems administration at Rochester Institute of Technology, suggests Firefox's add-on called PasswordMaker (passwordmaker.org).

Safe Keeping

Passwords are a good barrier to prevent strangers from accessing your private information, but they're only as strong as you create them to be. Regardless of the method you use to create a secure password or the way in which you store that password for safekeeping, we hope that you will keep these tips in mind. ❚❚

<div align="right">BY JENNIFER JOHNSON</div>

READERS' TIPS

COMPILED BY JOY MARTIN

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, email us at readerstips@smart computing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address, so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.

A Few Pointers To Help You Stay Organized & Efficient

Static-Free Business Cards

Because I like a lot of color on my business cards, I print them myself using a laser printer. In the past, the cards would "stick" together (it didn't matter if I used a laser printer or an inkjet printer) due to static cling. I found a simple solution to the problem. After printing and before taking the cards apart, I rub both sides with Bounce dryer sheets or a similar product. Not only do my cards no longer suffer from static cling, they smell nice, too! (Make sure the ink is fully dry first.)

Janice C., Stockton, Calif.

Don't Lose That Cap

Most flash drives have a cap on them to prevent dust from getting on the metal pins that connect the drive to a USB connector. If you have the right kind of drive, you can ensure that you don't lose the cap by connecting it to the drive via a nylon line. Nylon line of the type used for fishing will do, but it doesn't matter as long as it's sturdy.

To make this technique work, you'll need a flash drive with a plastic case and a hole at the end for a key ring or lanyard. On the end cap, make two small holes with a medium-sized sewing needle parallel to one another through the top of the cap. String the nylon thread through the tiny holes that you've just made in the end cap and tie the loose ends up through the same hole that the key ring or lanyard would go through. Tie off any extra thread. If the nylon threading was short enough, which it should be for this to work properly, the end cap on the flash drive will not slip off so easily anymore. If the threading is too long, you can cut and trim it to size with scissors or just tie off any extra threading.

The idea here is that the line of nylon thread between the end cap and the key ring tie-off should be a tight line, but not too tight. Also, as a side note, remember to take a can of compressed air and regularly clean out the USB ports on your computer, and never handle the end contacts pins of your flash drive with your fingers.

Ronnie B., Newport, N.J.

A Simple Backup Plan

I run Windows XP Pro, and for some reason I have problems with System Restore. It sometimes won't get rid of a worm or virus. I have a spare hard drive on hand and back up my original hard drive when I know it's all working correctly. When there's some bug I can't get rid of or my computer starts acting up, I just switch drives, and all is well until the next time. During that time, I have formatted the original drive and backed it up with the drive in the computer. It sure beats having to reinstall all of my software when the computer crashes.

Gary H., Ashdown, Ark.

Arrange Your Favorites By Name

Now that you have accumulated lots of Favorites in Internet Explorer, wouldn't it be nice to have them in alphabetical order? Easy! Just open IE, and in the top menu bar to the right of View, click Favorites. While pointing the mouse to the first name listed, right-click and then select Sort By Name near the bottom of the drop-down window.

Joel S., Holland, Mich.

The Fight Against Spam

Tips To Reduce Unwanted Email

You've got mail. Lots and lots of mail. What you don't have are lots of emails from legitimate sources. Instead, your inbox has been hijacked, filled with messages insisting you lose weight, receive $20 million from that nice man in Nigeria, and enhance your, ahem, performance.

Spam continues to increase in sophistication and will not be going away anytime soon. Consequently, computer users need to arm themselves with knowledge in order to properly handle spam.

What Is Spam?

Spam is unwanted email—mostly unsolicited advertising—that finds its way into your email inbox. It's similar to postal junk mail, but spam can be a lot more dangerous if not handled appropriately. For instance, it can spread malware such as viruses, spyware, or worms. Spammers are typically seeking financial gain, so they are usually after personal information such as your Social Security number or credit card number. At press time,

McAfee Avert Labs reported that 58% of all spam content was related to health and medicine. Non-English content was next in popularity with 18%, and then adult services accounted for 7%.

Shouldn't This Be Illegal?

In 2004, the Federal Trade Commission implemented the CAN-SPAM Act (Controlling The Assault Of Non-Solicited Pornography And Marketing Act) passed by Congress in 2003. This act outlines penalties for spammers and companies whose products are advertised in spam. The act bans false or misleading header information, prohibits deceptive subject lines, and requires that emails give recipients a legitimate opt-out method. Additionally, it requires commercial email be identified as an advertisement, including the organization's valid physical postal address. Each violation is subject to fines of up to $11,000, with additional fines for other misleading email practices.

While this sets a standard for the justice system, there are many challenges the FTC faces in its attempts to enforce the CAN-SPAM Act, said Allen Hile, the assistant director for the Division of Marketing Practices in the Bureau of Consumer Protection at the Federal Trade Commission.

"One of the recurring themes is it's tough to trace spam, because the protocol for email allows one to hide one's electronic tracks," Hile said. "So, it's very difficult to trace these guys down. And there's an international dimension

to this. You can spam across national boundaries, so that complicates it, as well. I'd say that finding the spammer and dealing with the cross-border issue are two of the major problems."

The FTC has enforced CAN-SPAM aggressively, bringing more than two dozen cases since the Act was passed. But Hile said catching spammers is a cat-and-mouse chase, in which spammers are always changing their tactics to escape the efforts of the FTC and law enforcement agents. According to Hile, email providers continue to strengthen filters, and the majority of spam gets blocked out or filtered. However, spam still manages to find its way into consumer inboxes.

Prevention & Protection

When looking to prevent spam, installing antispam software and tightening your built-in spam filters are good places to start. You can make the standards for access to your inbox as difficult as you want. It's possible to have all obvious or questionable spam messages sent to a junk or bulk folder to review upon receipt. You can also prohibit emails that are not from prespecified contacts from entering your inbox.

According to McAfee Avert Labs, good antispam software will block approximately 97% to 99% of all spam, but be wary. Some Web sites offering free antispam software downloads are actually disguised spammers themselves; downloading from these sites will only magnify your spam-control problems. Read reviews about these products and Web sites from a reliable third-party source before purchasing antispam software.

Regardless of how restrictive your antispam software or filters are, spammers will inevitably get around them. Thankfully, there are ways to protect yourself and prevent the dispatch of spam to your email.

Keep it to yourself. One way to avoid spam is to keep your email address secret. Set up an email account for the

sole purpose of using it publicly, such as request boxes and for posting on public forums. Only give your "real" email address to contacts that will be sending you personal emails. It is also not a good idea to forward chain emails because it is impossible to know who the future recipients might be. Finally, if you have a personal or company Web site, avoid listing your email address on it if possible.

If you feel these secrecy measures are too much trouble and would still prefer to manage just one inbox, even if it means giving out your email address, you can read any organization's privacy policy to find out if your email address will be shared with any other organizations.

Don't reply to emails or unsubscribe from unwanted newsletters. It's so tempting. You didn't sign up for the newsletter, you really want to give that spammer a piece of your mind, but mostly you just want the emails to stop. As difficult as it might be, *don't* click the Unsubscribe option or send a response. When you do this, you are confirming your email address by communicating to the spammer that you received and opened the email. It also informs spammers that their email was not blocked by a filter.

Instead of responding with a scathing retaliation, report the email to your Internet service provider. This will help your provider keep up with the latest tricks. Also, this potentially strengthens your spam filters and could help make them more sophisticated. The safest way to handle an email you know is spam is to report it without opening it. Do not open attached images, and set your email program to display your messages as text, not as HTML (Hypertext Markup Language).

Beware of phishing emails, greeting cards, and other spam scams. Spam has become so sophisticated that many people don't realize that they are responding to scam spam emails. Even the From address can be spoofed
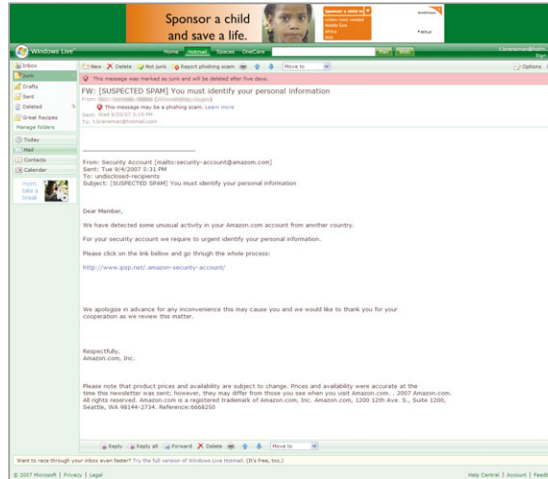
Phishing emails try to obtain sensitive information. The spammer here is posing as Amazon, but the link does not go to Amazon's Web site, which is www.amazon.com.

to look official. You may get emails appearing to be from legitimate companies such as eBay, PayPal, etc., asking you to confirm your private information, such as your Social Security number or account number. This is called **phishing**. McAfee Avert Labs found that phishing emails have increased 784% through the first half of 2007. If you have questions about whether to respond, just call the institution in question. Do not, however, trust the contact information given in the email.

Phishing emails easily fool people by accurately replicating the real company logo and other artwork and layout details. However, very few, if any, reliable organizations would ask you for that sort of information through email. These emails often have phony links for you to follow. Never click on these links. Following the phony link could confirm the validity of your email, result in more spam, or trigger a malware download.

If you find yourself wondering if there really is a problem with an account, ask yourself some questions: Does the email exhibit poor use of grammar or spelling? Do you actually have an account with this company? Does the email address you by name

or as "Dear Account Holder"? If you still have questions, go to the actual site (again, not by clicking on the link), because organizations will sometimes display updates about scams. Also, if your email address is not specifically listed in the To or CC fields, there is a strong possibility the message is spam. Remember, it never hurts to call the organization in question.

Symantec reported a rise in greeting card spam in August 2007. More than 250 million Symantec customers were targeted in July 2007, primarily over the weekend of the Fourth of July. The recipients were meant to be tricked into believing a friend had sent them an email greeting card. The subject matter consisted of exposed IP (Internet Protocol) addresses with links to download the card, but in reality, the victims were downloading Trojan horse viruses and other malware.

Another recent popular spam scam is the "pump-and-dump" investment stock offer. These spammers buy up stock at a discount rate, causing the stock to look like it is a hot commodity. The spammers then send out a spam email about the rising value of the stock. Once several people have bought into the scam and the stock price has risen, the spammer sells all his shares to make a profit, leaving everyone else with worthless stock. Recently the Securities and Exchange Commission has been cracking down on this practice, suspending 35 companies in two unrelated spam scams.

Break Free

You can take back control of your inbox. Spam doesn't have to be an inevitable part of using email. Use these defense mechanisms to fight back against those pesky spammers and make opening your inbox an enjoyable experience once again. ▌▌

BY TESSA WARNER BRENEMAN

Protect Your Network

A Guide To Wireless Security

W i-Fi uses radio signals to eliminate pesky cabling and lets you access the Internet from anywhere in the home, office, or the downtown coffee shop. But there are two potential problems with this open, radio-based networking: Anyone with a wireless network card can gain access to your data, and every wireless user winds up competing for access to the nearby wireless access point.

No business owner wants nearby laptop users sniffing their sensitive client information, and you don't want neighbors leeching the high-speed Internet access that you're paying for. Fortunately, today's wireless network devices let you secure your valuable files and bandwidth. In this article, we'll show you how to implement wireless security for your home network.

Wireless Security Basics

All wireless security employs encryption, which uses a mathematical process to "scramble" each data packet before it is sent out over the antenna, and then "descrambles" each packet back into its original form on the receiving end. Your NIC (network interface card) can encrypt data being sent to the wireless access point and decrypt data that it receives from the access point. Only PCs that are configured with the necessary security key, or passphrase, can exchange data successfully between the wireless NIC and the local access point.

Anyone nearby with a PC and wireless NIC could still sniff, or monitor, the radio waves to receive any data being sent over the network, but because your data is encrypted, it is illegible to them. Your next-door neighbor also can't check his email through your wireless Internet connection because

he doesn't have your encryption key; so, while he may still "see" that your network is there, he cannot access it.

WEP. Several types of security have evolved over the last few years. Wired Equivalent Privacy is a basic encryption scheme that was included with the original IEEE 802.11 wireless networking standard ratified in 1999. WEP encryption can deter casual snooping and may still be used in basic household networks, but well-known weaknesses in this standard make it possible to crack a WEP key in a matter of minutes.

WPA. Wi-Fi Protected Access was released in 2003 as a far stronger encryption standard to be used in place of WEP. WPA is a server-based security approach that incorporates longer keys and other features such as the TKIP (Temporal Key Integrity Protocol) that changes keys periodically. WPA also includes a personal or PSK (preshared key) mode that allows home and small office users to enable WPA without the use of a separate server.

WPA2. By 2004, the IEEE completed its 802.11i security standard, which included the full WPA standard, dubbed WPA2. WPA2 uses strong encryption

keys and TKIP, but it also uses a new AES (Advanced Encryption Standard) algorithm called CCMP (Counter Mode with Cipher Block Chaining Message Authentication Code Protocol), which is now considered fully secure. WPA2 certification has been mandatory for all Wi-Fi certified devices since March 2006. When creating a home or small office network today, it is best to select devices that support WPA2. Note that some manufacturers, such as Linksys, denote the WPA and WPA2 standards as PSK and PSK2.

The Lowest Common Denominator

The big issue with securing your wireless network is that security standards are not interchangeable or backward compatible, so the best security that you can achieve is limited to the lowest common standard available in all of your wireless devices. For example, if your older wireless router and wireless NIC only support WEP, you can't network another PC using WPA2. Before you enable wireless security, it's a good idea to check your wireless devices and determine which (if any) security standards are available to you.

Start with your wireless router. Access the management feature of your wireless router according to the manufacturer's documentation. Locate the security settings and examine the list of security modes available. By default, this will probably be set to Disabled. Write down all of the available options, but don't make any changes just yet.

Next, check your wireless NICs. Note that you should first verify the presence of a wireless NIC by checking for a Wireless Networks icon in your System Tray or clicking Start, My Network Places, and View Network Connections

to see if there is an entry for a Wireless Network Connection. If so, you have a wireless NIC or chip in your PC and can proceed. If not, you will need to install a wireless NIC (either as an internal expansion card, a USB device, or a PCMCIA card) according to the manufacturer's instructions and then proceed.

Remember that you will have to enable security on each PC, so check the available mode(s) on each of the PCs on your network. In Windows XP, click Start, Control Panel, and then double-click Network Connections. Right-click the Wireless Network Connections icon and click Properties. Click the Wireless Networks tab, highlight the wireless network name that you want to connect, and click the Properties button. Select the Network Authentication and Data Encryption entries to see what encryption types are available on that NIC. Don't make any changes; just note the available modes. Repeat this for each PC that should be secured.

Now you know what security levels are available in each of your wireless devices. It's best to enable WPA or WPA2 encryption if your devices support those modes. But, if some (or all) of your wireless devices only support WEP, you should strongly consider upgrading those devices to WPA/WPA2-compliant devices to ensure the very best security. Check with the device manufacturer to see if a WPA firmware upgrade is available to make your older WEP device WPA-compliant. WEP will work in a
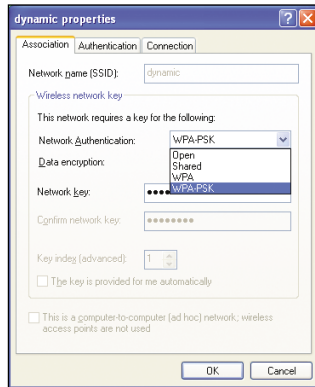
Check the properties of your wireless network interface cards to determine the encryption standard(s) that they can support.
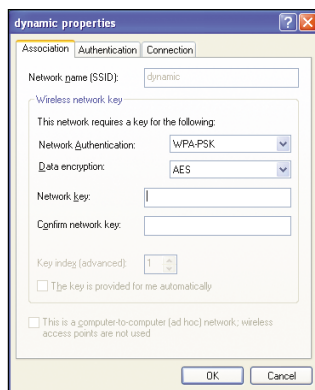
Configure the network interface card's authentication to WPA-Personal, select AES encryption, and then enter and confirm the corresponding key or passphrase that you selected for the router.

home or small office, but it's well-known that WEP encryption can be broken. If you cannot upgrade or replace devices at this time, you should still enable WEP on all of your devices, because any type of security is better than no security at all.

Enable WPA/WPA2

To make wireless security work, start with the router. Access the management feature of your wireless router, locate the security settings, and select the WPA Personal/WPA2 Personal option (or PSK Personal/PSK2 Personal, depending on the manufacturer). The Personal option lets WPA work without a separate key server.

Choose the TKIP or AES encryption type. For this example, let's go with AES. Enter the key, which should be between eight and 63 ASCII (American Standard Code for Information Interchange) characters or 64 hexadecimal characters—ASCII keys should use a mix of uppercase, lowercase, numbers, and a few simple punctuation characters to create your key. Make your keys as long as you can, and write them down in your router documentation. Save your settings, but remember that your wireless network will suddenly become inaccessible until you make the corresponding changes to other PCs.

Choose the first PC to update and do the same thing for that computer's NIC. Again, for the Network Authentication entry, select WPA-Personal (or WPA-PSK) or WPA2-Personal (or

WPA2-PSK), select AES as the Data Encryption type, and then enter the passphrase in the Network Key entry. Use your chosen phrase and make sure that you enter the key exactly as you did for the router. Click OK to save your changes and click OK again to close the Properties dialog box. After a few moments, the PC should update and your secure wireless connection should be established. Repeat this process for any other PCs on the wireless network.

If you don't automatically connect to the secured network, try rebooting the PC. When the system restarts, you should see a Wireless Network Connection icon in your System Tray. If the icon does not indicate that you are connected, right-click the icon and choose View Available Wireless Networks. Verify that your particular network appears in the list of networks. If not, the router is offline or the SSID (Service Set Identifier) beacon is turned off. If the network name appears, highlight it and click the Connect button. A dialog box appears for you to enter the network key. A few moments later, the PC should connect to the wireless network.

Tips For Better Security

There are a few tips that you can follow to keep your wireless network even more secure. First, keep track of your passphrase or key. It's a good idea to write the key or passphrase in the documentation for your wireless device and store it in a locked cabinet. Also, turn off the SSID. The SSID is the name given to your wireless network, and the access point broadcasts it every few seconds. Once security is established, it's typically a good idea to turn off the SSID in your wireless router. No one will try hacking your network if they don't know it's there. Finally, change your keys periodically. Just like an ordinary password, longer and more complicated keys or passphrases will improve security by making your wireless network harder to crack. ▐▌

BY STEPHEN J. BIGELOW

Why Safari Won't Be Like iTunes

by Kylee Dickey
kylee@smartcomputing.com

I f you've read *Smart Computing* for a while, you no doubt are aware of the many security patches that Microsoft must release for Internet Explorer. These frequent security issues are one of the many reasons a growing number of users have turned to other Web browsers, with two of the most popular options being Mozilla Firefox (www.mozilla.org) and Opera (www.opera.com).

Now there is another option for Windows users, as well. This summer, Apple announced the beta release of a Windows edition of its Safari Web browser. Safari is the Web browser that comes preinstalled on Macs and that is included in the OS X operating system.

You may remember that the digital music landscape changed drastically when Apple brought its formerly Mac-only iTunes software to Windows. Although the success of iTunes for Windows was phenomenal, I sincerely doubt that Safari for Windows will have such a drastic influence on PC users. Apple's reasons for releasing Safari for Windows are less revolutionary and more practical.

Why Windows Users Aren't Ready To Go On A Safari

I want to start by saying that I am a Safari user. I have Safari set as my default Web browser on my Mac, although I do split my time between Safari and Firefox for Mac. I like Safari's interface; its tabbed browsing is easy to use and intuitive, and it renders pages quickly. Although I use Safari on my Mac, I feel little need to use it on any of the PCs I use.

The problem with porting Safari to Windows is that there are two main types of PC users: those who use IE simply because it came with their computer (or with Windows), and those who do not use IE and have already become fiercely loyal to a different Web

Can Apple's Safari browser transition from Macs to Windows? (Image courtesy of Apple)

browser. In the latter category, many of these people prefer Firefox, and I doubt that many of these users will dump Firefox in favor of Safari.

Safari doesn't offer many features that Firefox lacks, but more importantly, Safari's code is closed to third-party developers, whereas Mozilla has provided great support to third-party developers. As a result, many Firefox plug-ins are available that add functions to the basic Firefox product.

Why Bring Safari To Windows?

If Safari's odds for Windows dominance are so slim, then why would Apple release Safari for Windows? It's my guess that Apple knew that Safari wouldn't really change the PC world, but Apple very much needs a share of the Windows market in order for Safari for Mac to survive. This is because Safari is used on almost every modern Mac. However, because only somewhere between 4 and 10% of the world's computers are Macs, that means that Safari had no room to grow in order to establish a greater share of the overall Web browser market. The more people who use Safari, the more likely Web designers and developers are to pay attention to and support Safari.

There is another reason Safari's expansion and survival is important to Apple. If Web developers do not create Web applications that are compatible with Safari, it will severely limit the functionality of Apple's iPhone. If Apple can increase the overall number of Safari users, it will therefore increase the odds of developers supporting its iPhone and creating new applications for iPhone users.

Most importantly, though, by releasing Safari for Windows, Apple ensured that Web developers do not need a Mac to test their Web applications in Safari. This alone should increase the number of Web pages that support Safari and the iPhone.

Apple's Quest For PC Users

As you can see, it isn't essential for Safari to destroy IE or even take a sizeable chunk of Firefox's audience. Instead, all Apple has to do is a) get its foot in the door enough that Web developers take notice, and b) provide a PC-based means for developers to test applications for the iPhone. ∎

WEB TIPS

Enhance Your Time Online

Print Your Own Pad

Problem: I have been looking for a specific kind of graph paper that my local office supply store doesn't seem to carry.

Solution: Engineers and graph paper geeks rejoice! PDF Pad (www.pdfpad .com) provides downloadable ready-to-print blank charts and graphs. Choose Cartesian, engineering, isometric, or hexagonal graph paper or even more rarified types like logarithmic, probability, or Smith Chart paper. These are all customizable, from page size to unit of measurement and size of the cells. If this all seems too techie for you, there are other blank documents to print: calendars, music staff paper, storyboard layouts, sudoku games, etc.

Use What You Have

Problem: I like looking at recipe sites, but I always end up spending money buying a bunch of ingredients I'll only use once.

Solution: It's pretty easy to find a recipe on the Internet if you already know what you want to make. What if you don't? Experienced chefs know how to assess what's in the pantry and whip up something using ingredients on hand. Those of us who need a little more inspiration in that area can check out Recipe Matcher (www.recipematcher.com). Enter in the list of stuff you have to cook with, and this site suggests a number of recipes. Obviously, this works best if you can be as complete as possible in your entry, though some recommendations suggest a simple purchase of one or two more ingredients. There's also a similar tool for drinks.

Contact Me, Don't Spam Me

Problem: I've been advised not to put my email address on my Web site for fear of spammers snatching it up. How can I tell people how to contact me?

A slick contact form for your site without having to do the heavy coding.
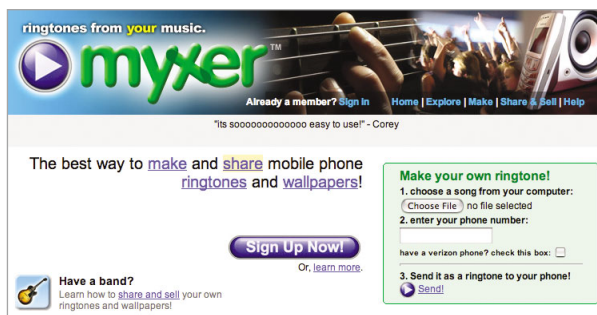
Make your phone sing with free, custom-made ringtones.

Solution: A live, hyperlinked email may seem convenient, but it's a surefire way to flood your account with spam. One standard alternative is to "spell out" your address, like "bob at bobspage dot com," though this can sometimes confuse your friends. So here comes Contactify (www.contactify .com) with a simple, free contact form you can put on any site.

Hype The Game

Problem: I'm looking for more extensive game coverage than I get from the local sports page and the big major league sites.

Solution: Sports fans know that it's hard to get too much news about your favorite pastime. Here comes Ballhype (ballhype.com) to make things more exciting. On one hand a news aggregator—it collects stories from over 1,800 sports blogs and lets users rank them, similar to sites like Digg (www.digg.com)—Ballhype also has a community feature, so you can track stories on your team, post your own stories, or set up a group for contests and predictions.

Bring The Ringtone

Problem: I just got a new phone with a huge storage capacity and the ability to play back music . . . but I can't set one of my MP3s as a ringtone.

Solution: Though it may seem like a no-brainer to simply select a song to be your ringtone, many cellular carriers do not allow this so that they can sell ringtones. But if you've already bought this fall's hot track, how can you get it ringing every time you get a call? Go to Myxer (www .myxertones.com) and make it happen. Register free and you can upload a song to this site, edit it into a ringtone, and send it to your phone in a compatible format (you must be able to access the Internet with your phone to download the ringtone). Beware, though . . . while this site provides a free service, depending on your phone's data plan, you may be charged to download the tune to your phone. ❚❚

FIND IT ONLINE

Compiled by Joshua Gulick
Illustrated by Jason Codr

Autumn On The 'Net

Designed To A T

www.designedtoat.com

If you're looking for Thanksgiving-themed images that will spruce up your personal Web site (or your letters to friends), head on over to this Web design site. Although Designed To A T occasionally displays an annoying banner ad, the site also offers free images, including backgrounds, Web page dividers, and, most importantly, clipart. To find the turkeys, pilgrims, and other Thanksgiving clipart, click the Free Graphics tab near the top of the main page and then click Clipart and Thanksgiving. Of course, the site offers clipart for several other themes, so don't forget to check out the full category list.

Hike With Your Dog

www.hikewithyourdog.com

Fido was excited the first few times you walked him around the block, but that trek got old years ago. If you're planning a vacation for you and your pooch, look no further than Hike With Your Dog, which bills itself as "The site where you won't be able to wipe the wag off your dog's tail." The site lists dog-friendly trails and parks by state so you won't have to leave Fido behind when you hike or camp. Check out the free articles, join the newsletter,

listen to podcasts, or buy Doug Gelbert's "Doggin'" books.

Holidays On The Net

www.holidays.net

Thanksgiving is quickly approaching, and the winter holidays aren't far behind. Whether you're preparing for Thanksgiving dinner or looking for email greeting cards, Holidays On The Net has you covered. The Crafts & Recipes section has turkey, ham, and stuffing recipes, as well as printable coloring pages that will entertain the kids while you cook. The site's Holiday Greeting Cards section sends you to Greeting-Cards.com, which offers a free trial to nonmembers. We like the Holiday Calendars section, as it lets you quickly confirm the dates for important holidays throughout the year, including Thanksgiving.

Kaboose

www.kaboose.com

This brightly colored, cheery Web site offers tons of tips for parents who want to make the most of their free time with family members. The site has several sections that will catch any parent's attention, such as Parenting & School, Recipes & Food, and Just For Mom. If you're looking for some autumn- and Thanksgiving-related family activities, click the Holidays & Fun tab and then click Fall or Thanksgiving. Each section offers recipes, coloring pages, crafts, and suggested reading material. We like the Leaf Stamps project, which looks like exciting, messy fall fun.

National Park Service

www.nps.gov

Planning to take a stroll in the woods this fall? If you like to visit parks when the leaves are turning colors, check out the National Park Service online. Thanks to an interactive map of the United States, you can learn more about parks by state. When you roll the mouse pointer over a particular state, a window appears, complete with a picture of a national park in that state and a brief description of the state's national parks. Click the state to see a larger map that offers information about individual parks and national historic trails.

Science Made Simple

www.sciencemadesimple.com

Colorful leaves dazzle artists every fall, but budding scientists can find inspiration in autumn colors, too. Science Made Simple offers parents and teachers free instructions for a variety of science projects, including a project that helps young scientists answer the question: "Why do leaves change color in the fall?" The project makes use of easy-to-find household items, such as baby food jars, coffee filters, tape, and spoons. Once you've gathered the materials, follow the directions to separate the colors of the leaves you've collected.

The Hiking Web Site

www.hikingwebsite.com

If fall has you thinking wistfully of past hiking trips, it may be time to throw on the ol' hiking boots and hit the trail. Before you dig through your closet for those boots, however, it won't hurt to grab a mug of hot cocoa, pull up a chair to your PC, and wander your way to The Hiking Web Site. The site boasts hiking how-tos and detailed descriptions of hikers' gear. If you're new to hiking, be sure to check out these articles before you buy new gear: They'll fill you in on important terms, such as "season ratings," that you should know when you shop.

That's
News
To You

Finding the appropriate Usenet discussion group to match your interests can be a monumental task. So each month, we scour tens of thousands of newsgroups and highlight ones that delve into popular topics. If your ISP (Internet service provider) doesn't carry these groups, ask it to add the groups to its list. This month, we head outside to enjoy the fresh autumn air.

alt.mountain-bike

If the fall isn't the perfect time to ride a bike, we don't know what is. The leaves are turning and the air is crisp and cool, but it doesn't yet have that icy edge that will send us scurrying indoors in a few months. Check with your new bike buddies in this group to find the best biking trails and ask questions about biking gear.

rec.food.baking

Thanksgiving is just around the corner, so now is a good time to get in touch with the members of rec.food.baking and start planning the finale for the big dinner. This group discusses cooking methods and equipment, so feel free to ask questions about your bread machine while you're solving another user's cheesecake dilemma.

rec.outdoors.camping

If you plan to camp this fall or winter, introduce yourself to the friendly members of this group. Users pool their knowledge to help friends find the best campgrounds and parks.

Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month we feature highlights from our pickings. This month, we put fall's bright colors on our computers.

Altix Soft Autumn Screen Savers

If you're like us, you change your PC's preinstalled screen saver from time to time. After all, you can change your screen saver in a matter of seconds. Right-click the Desktop, click Properties, click the Screen Saver tab, and then select a screen saver from the drop-down list.

If you're tired of the built-in screen savers, try Altix Soft's (www.altix soft.com) bright, easy-to-use screen savers. The site has screen savers for a variety of themes, including Autumn Motives and Autumn Blues. Installing either screen saver is a snap (you simply double-click the download file to start the installation process), and the screen saver has its own control panel. The control panel lets you browse the screen saver's fall scenes and can even put scenes onto your PC's Desktop.

Try either screen saver free (the trial version will either have limited functionality or it will have a seven-day limit). Buy Autumn Blues for $17.95 or Autumn Motives for $14.95. The software supports Windows 95/98/Me/NT/2000/XP.

Essence Of Autumn

Thanks to digital stationery, you can enliven your email with images. Cloudeight (www.thundercloud.net) offers thousands of stationery files for your PC, including Essence Of Autumn: The Art Of Mark Keathley. This stationery collection includes 10 scenes, such as Wild Horses, Fishing Buddies, and Mountain High. Once you've installed the software, you'll be able to add any scene to your outgoing message.

To find the stationery, click Visit Our Stationery Library on the main page and then click Essence Of Autumn. Scroll to the middle of the page and click the link to download Essence Of Autumn. You will be directed to a page where you can select the download for the email program you are using. Once you've installed the stationery, you can add scenes to your email. In Outlook Express, click the Create Mail button's arrow and then click Select Stationery. Next, double-click the Cloudeight folder, open the Essence folder, and then select the scene you like. In Windows Vista's Windows Mail email program, click Message, New Message Using, and then click Select Stationery. A folder will open to display the stationery themes.

The Essence Of Autumn collection is free. It supports Win98/Me/NT/2000/XP/Vista, as well as Outlook Express, Outlook, and Windows Mail (Vista). ∎
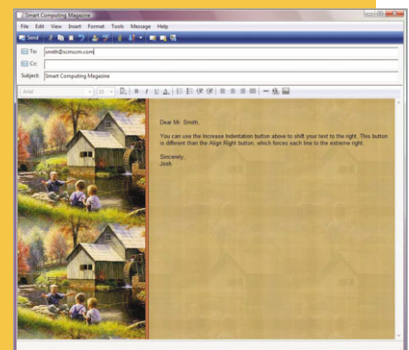
Outlook, Outlook Express, and Windows Mail have buttons to increase indentation, which helps you position your text away from the stationery's picture. The button isn't active until you click in the message body.

Mr. Modem Tackles Penguins & Trans Fats

I n my April column, "Breaking Up Is Hard To Do. Oh, Wait . . . No, It's Not," I ranted—some might say whined—about the amount of junk software (aka "crapware") computer manufacturers inflict upon purchasers of new PCs. Apparently my scathing rhetoric struck a noive, as we used to say back in the 'hood. I'm sure it's no coincidence that Dell recently announced a new line of Vostro PCs that are "trialware"-free. (OK, wink-wink; we can call it "trialware.") Call it what you will, it's a good move on Dell's part, and I hope other PC manufacturers follow suit. If your computer is infested with "trialware," take a look at the free PC Decrapifier (tinyurl.com/rbr2z). Perhaps we should call it the PC Detrialfier.

Did you know that you can personalize your Google home page with items such as stock quotes, news stories, and even (gasp!) inspirational messages? Create your free Google account at www.google.com/ig, log in and click the Pimp My Page link. No, just kidding. That's my gangsta persona coming through. Most people don't know that I spent my formative years as a rapper. "Yo, Mr. Mo!" (Well, OK, I was a gift wrapper at Macy's, but work with me here.) Click the Add Stuff link and, you'll find 24 additional items. After tricking out (yes, Mr. M. knows all the hepcat lingo) your home page, click Tools and Internet Options, select the General tab in Internet Explorer or Firefox, and designate it as your start page.

Attempting to locate the cursor when it slithers into a corner or blends into a background image is a well-known catalyst for mouse rage. To assuage the rage, go to your Control Panel and double-click the Mouse icon. On the Pointer Options tab, place a check mark beside Show Location Of Pointer When I Press The CTRL Key, then click Apply and OK. The next time your cursor tries to escape, simply tap the CTRL key while screaming, "Reveal thyself, wretched rodent!" Then breathe deeply and think calming thoughts until the paramedics arrive.

When you first power up your computer, the motherboard performs a diagnostic test called the POST, which stands for Power On Self Test. Once your PC has passed the POST, it will beep once and information will appear on-screen. If your computer fails the test, as the inevitable feelings of shame and humiliation wash over you, a series of beeps will attempt to communicate what went wrong. If you're not fluent in BeepSpeak, allow me to translate: A series of continuous short beeps usually means a memory error. One long beep followed by two or three short beeps usually indicates a problem with the video card. Three long beeps suggest a keyboard error, while a series of repetitive short beeps suggests a power supply problem. Five beeps may indicate a processing error, and one long howl usually means you stepped on the cat.

I see from my open-source wall calendar that it's been a few months since I've mentioned Linux. To briefly recap, in addition to my Windows systems, I have been using the Kubuntu (Gesundheit!) distribution for more than two years. It's an excellent operating system and a viable alternative to Windows for those seeking a change and a challenge. I do, however, have three heartfelt suggestions for members of the Linux community seeking to encourage Windows users to make the transition: 1) Enough already with the Linux history. I have yet to encounter any Linux book that didn't devote far too much attention to the history of Linux. If any prospective users are interested—and most are not—it's available on the Web. The histories of the Windows and Mac operating systems are equally compelling, but enough is enough. 2) For the love of penguins, stop trying to elevate Linux by denigrating Windows and Mac. If Linux achieves mainstream popularity on the desktop, it's going to happen because it's a better operating system, period. Focus on Linux strengths instead of the weaknesses of other systems. 3) Be nice! The transition from Windows to Linux is not an easy one for many users. Offering a friendly helping hand to new users is the best advertising Linux can have.

With Thanksgiving just around the corner, Mrs. Modem and I look forward to joining our socially challenged MySpace family again this year to blog our blessings. As the microwave infuses our compressed turkey-like roll, organic dressing, and trans-fat-free gravy with a delicate hint of Radon, we wish you a safe and equally traditional holiday. ❚❚

BY MR. MODEM

Mr. Modem, (Richard Sherman) *is an author, syndicated columnist, radio host, and publisher. "Mr. Modem's Weekly Newsletter" provides personal responses to subscribers' computer and Internet questions, plus weekly computing tips, Web site recommendations, virus alerts, hoax warnings, and more. For additional information, visit* www.MrModem.com.

SmartComputing.com Chat Rooms:
Stop By & Chat!

Finding the computing answers you need can be an intimidating task. SmartComputing.com provides you with an informal, easy-to-use chat room where you can discuss everything from computer problems to the latest issue of *Smart Computing*. Don't forget to check out the Frequently Asked Questions section and Rules Of The Board. The busiest times for chat rooms usually start around 8 p.m. CST. Getting started is easy, here's how:

Please read the Frequently Asked Questions for more information.

These Chat Rooms are monitored by *Smart Computing* employees. For more information on acceptable Chat Room behavior, read the Rules Of The Board.

If you have comments or questions, email feedback@smartcomputing.com.

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1. After logging in, click the Computing Chat Room link on the left side of the home page.

2. Read the Frequently Asked Questions and Rules Of The Board at the top of the page.

3. There are six rooms to choose from; rooms with people are noted with the number of users in parentheses next to the room number.

4. Click the numbered chat room link you wish to enter (*NOTE: Chat Room 1 is usually busiest*).

5. You'll see a list of current chat users on the right, in different colors, and the conversation in the main screen on the left.

   To change the way messages display, the screen refresh rate, and the font size, click the Chat Preferences link. Select your preferences and click Save.

   Join the conversation by entering a comment in the Type In Comment box and clicking the Send/Refresh button.

   When you finish chatting, click Exit Room.

Turkey Day

In celebration of the annual Thanksgiving feast, we searched SmartComputing.com for several tasty items. "Turkey" appears 70 times, "stuffing" 65 times, and this writer's favorite, "mashed potatoes," occurs just one time.
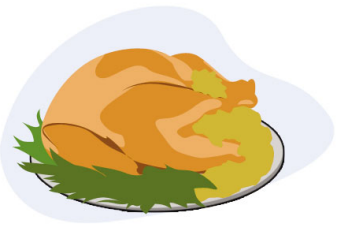
'Tis The Season

Christmas is just around the corner, as are massive shopping crowds and long checkout lines. Do yourself and someone you care about a favor. Give the gift of *Smart Computing*. Just visit SmartComputing.com to get started.

Find A New Favorite

Discover a new, fun Web site each day with our Daily Fun Site. Go to SmartComputing.com and scroll down to the Daily section or sign up for the Daily Email to have this and other valuable information sent to your inbox every day.
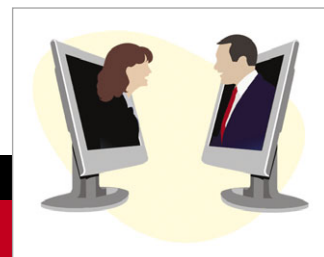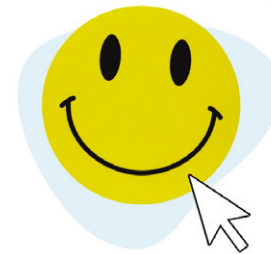
From *Smart Computing's* Dictionary

chat   Live communication over the Internet or an online service. Unlike email, with each person sending mail and waiting for a reply, chatting involves two or more people typing comments back and forth in a conversational style. As one person enters text, it appears on the other person's screen in real time. Chat rooms can be found on commercial online services such as America Online and by using Internet Relay Chat software with an Internet connection.

SYSTEM SETTINGS CENTRAL
MANAGE THE WINDOWS REGISTRY

Working

in the Registry

should never

be undertaken

lightly.

The Registry is Windows' most crucial repository of system settings and configuration information. Nearly everything the OS (operating system) needs to remember about your PC's hardware, software, and preferences resides in the Registry. Understanding the Registry's structure and the tools available for editing Registry values will help you manage and protect your system's key settings. In this article, we'll introduce you to the basics of the Windows Registry and walk you through a few popular tweaks that can help make your machine a more productive environment.

Navigate & Edit The Registry

Working in the Registry should never be undertaken lightly. You can seriously compromise or corrupt Windows and other applications with a single wrong entry. Pay extra attention to each click and keystroke and only trust reputable sources for instructions.

Windows organizes the Registry in a tree hierarchy similar to the folders and subfolders you're probably used to seeing in My Computer or Windows Explorer. Hives, also called root keys or root nodes, sit at the top of the hierarchy. Each hive has several keys (equivalent to folders) that contain multiple levels of subkeys (like nested subfolders), which ultimately hold values (similar to files). Each value defines a specific setting or preference, controlled by its value data. Adjusting value data changes the associated action or setting. A **Registry path** records the hives, keys, subkeys, and values for any given Registry entry. For example, Tweak No. 2 disables Windows' CD Autorun function by changing value data for the AutoRun value found by following this

path: HKEY_LOCAL_MACHINE\ SYSTEM\CURRENTCONTROLSET\ SERVICES\CDROM.

There are several commercial and freeware utilities promising to make Registry editing easier, and if you're at all uncomfortable working in the Registry, it may be best to use such a third-party utility. However, Windows' built-in tool is generally sufficient for basic tweaks. The tool is called the Registry Editor, though it isn't normally available in the Programs menu. The easiest way to access the Registry Editor is from the Run option in the Start menu. Open the Run command line, type **regedit**, and click OK.

Editing the Registry involves one of three modifications: changing value data, adding values (and then setting their value data), or deleting values entirely. Adjusting values is the simplest, safest, and most common edit. Two of the tweaks mentioned in this article are of this variety: Simply navigate to the

Editing a Registry entry simply involves right-clicking the correct value, selecting Modify, and entering new value data.

correct value in regedit, right-click the value's name, select Modify, and change the value data accordingly.

Registry additions and deletions are riskier and more involved. Don't attempt to add or remove Registry values unless you have specific instructions from a reliable resource, preferably with confirmation from at least one other trusted source. Tweak No. 3 is of this sort—we get rid of Windows XP's annoying Search Companion (and "Rover The Dog") by adding a new Registry value.

Registry Maintenance

Before manipulating the Registry, however, you should always back it up. In fact, it's not a bad idea to back it up regularly anyway. WinXP's built-in System Restore utility is the easiest way to back up and save Registry settings.

System Restore also makes it easy to roll back to a recent restore point (of your choosing) should anything go wrong. From the Start menu, open All Programs, Accessories, and System Tools. Select System Restore. You can manually create a restore point using the wizard or click System Restore Settings to ensure that Windows is automatically monitoring and backing up your settings. When you need to restore the system to a prior state, follow the same steps (after booting into Safe Mode, if necessary) and choose Restore My Computer To An Earlier Time from the wizard's opening screen.

If restore points aren't available or don't work, you'll have to take stronger measures. Invoking Windows' restoration and repair tools can

risk corrupting the whole system, though, so back up whatever data you can before proceeding. First, reboot the machine and load Windows' startup options by pressing F8 as you boot up. Use the arrow keys to select the Last Known Good Configuration boot option and then press ENTER. Windows will launch with its most recent stored setup, hopefully rolling back over any Registry corruption. If that doesn't work, boot from your Windows installation CD and choose the *R* option (for Recovery Console) during setup. If all else fails, reinstalling Windows may be the only remaining option.

Common Registry Tweaks

TWEAK 1:
Speed up the Start menu

Windows takes a quick pause before expanding areas of the Start menu, and for no apparent reason. For example, if you're tired of waiting for the Programs menu to show up, launch regedit and open HKEY_CURRENT_USER. Drill down to the CONTROL PANEL\DESKTOP subkey. If the value MenuShowDelay exists, right-click it and select Modify. If it doesn't exist, choose New and String Value from the Edit menu. Name the new value MenuShowDelay. Modify the new value and enter any number from 0 to 500 (defining the delay in milliseconds) in the Value Data field. Click OK, exit the Registry Editor, and reboot.

TWEAK 2:
Turn off CD Autorun

Some people find Windows' habit of automatically launching an explorer or media player window whenever you insert a CD helpful. Others, who know what they want to do with a disc right away and don't want to wait for the OS to decide, may want to disable this feature. To do so, launch regedit and open HKEY_LOCAL_MACHINE\SYSTEM\CURRENTCONTROLSET\SERVICES\CDROM. Right-click the value named AutoRun, select Modify from the context menu, and change the Value Data from 1 (enabled) to 0 (disabled). Click OK, exit the Registry Editor, and reboot.

TWEAK 3:
Revert Search Companion

If WinXP's expanded Search Companion tool and Rover icon get on your nerves, make Windows use its old search interface (*sans* annoying puppy) by adding a new Registry value. Open regedit and expand the HKEY_CURRENT_USER hive. Navigate to the SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\EXPLORER\CABINETSTATE subkey. From the Edit menu, select New and String Value. Name the new value Use Search Asst and then right-click the new entry. Choose Modify, type **no** for the Value Data, click OK, exit the Registry Editor, and reboot.

TWEAK 4:
Automatically delete temporary Internet files

Internet Explorer's cache fills up over time and can affect both performance and reliability online. You can always go to Internet Options from IE's Tools menu to manually clear out temporary Internet files, but this tweak makes it happen automatically each time you exit the browser. Launch regedit and open HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\INTERNET SETTINGS\CACHE. From the Edit menu, select New and DWORD Value. Name the new value Persistent and then right-click the new entry. Choose Modify, type **0** for the Value Data, and click OK. Exit the Registry Editor and reboot.

TWEAK 5:
Bypass Windows' Welcome screen

The Welcome screen in Windows is polite and certainly isn't bad advertising for Microsoft, but it doesn't do anything to improve your bootup times. To hide the screen, launch regedit and go to HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\POLICIES\EXPLORER. Choose Edit, New, and select DWORD Value. Name the new value NoWelcomeScreen. Right-click the new entry and type **1** as the Value Data to hide the screen (a setting of 0 lets it return). Click OK, exit the Registry Editor, and reboot.

You have a powerful tool at your fingertips, but don't let the Registry's high stakes intimidate you. With caution and the right guidance, anyone can open up powerful new possibilities for managing system settings. ▐▌

<div align="right">BY GREGORY ANDERSON</div>
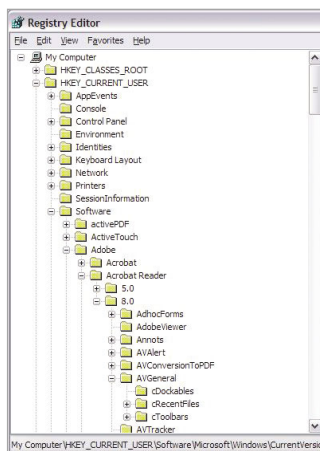
The Windows Registry is organized into a tree structure of hives, keys, subkeys, and values.
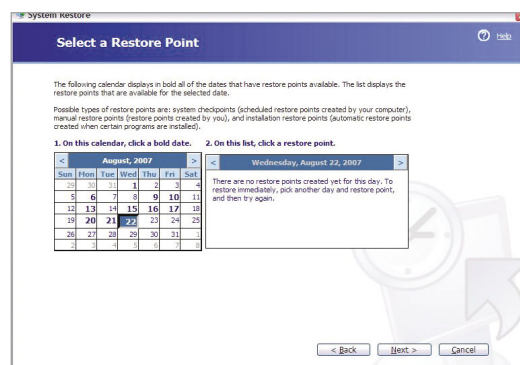
The System Restore utility lets you create or schedule restore points, to which you can roll back the system if the Registry becomes corrupted.

SET UP SCHEDULED TASKS

EASY WAYS TO MAINTAIN YOUR PC

With Windows XP's Scheduled Tasks, you can set up any program to start automatically.

Ever wish your computer had a mind of its own? Well, maybe not, but it would be nice if it would act like it sometimes, such as when you want it to start a program automatically.

You can come close to accomplishing this by setting up scheduled tasks for PC maintenance. That way, you can run those drive cleanups any time of day or night, when you *don't* need to use your PC. And you don't have to stop there. With Windows XP's Scheduled Tasks, you can set up any program to start automatically. Here's how.

Start With Scheduled Tasks

To schedule a task, start the Scheduled Task Wizard. To open the wizard, click Start, All Programs, Accessories, System Tools, and then Scheduled Tasks. Double-click the Add Scheduled Task icon in the window that appears and then click Next. This will open a list of programs installed on your PC. Simply click the program that you would like to create a schedule for (such as Disk Cleanup) and then click Next. On the next page, you can enter a name for the Scheduled Task and choose the frequency with which the task will be performed, such as Daily or Weekly. Click the radio button next to your choice and then click Next.

Now you'll enter some details about when to start the task, which will vary depending on your previous selection. For example, if you chose Weekly, you'll enter a Start Time for the task and then choose which day of the week you want the task to begin. Click the Next button when you're done selecting these settings. On the next page of the wizard, enter your username and password. Click Next and then click Finish to finalize your Scheduled Task.

Use Scheduled Tasks With Other Programs

Don't worry if a program you want to schedule doesn't appear in the Scheduled Task Wizard. You can set a scheduled task for any program on your PC, including third-party cleanup utilities. All you have to do is tell

Use the Scheduled Task Wizard to run your programs automatically.

Scheduled Tasks where the program's EXE file is.

Let's open the Scheduled Task Wizard again. If a program that you want to schedule a task for doesn't appear on the programs list, click the Browse button. This will open a window in which you can browse through your PC's folders and files. Chances are that the EXE file for the program you want to schedule is in your Program Files folder, which you can find on the Windows hard drive (usually C:).

Double-click the Program Files folder and scroll through the list of folders until you find the one for the program you wish to schedule. Double-click the folder to open it. You'll see a list of icons and perhaps some more folders. More than likely, one of these icons corresponds to the EXE file that starts your program. If you don't see an .EXE file extension next to any of the icons, simply look for an icon that bears the name of the program or something similar to it. If you don't see such an icon, browse through some of the folders and subfolders to see if it's hiding in one of them. If you are not certain whether you've found the correct program icon, right-click the icon and then select Properties. You'll see an entry near the top of the dialog box that says Type Of File. If the Type Of File is Application, you've found the right icon. Click Open to add the program to the Scheduled Task Wizard. From this point on, you'll go through the same steps as before to set up the Scheduled Task.

Convenient Cleanup

Using a PC should be convenient, but what can be more convenient than running cleanup programs when you're *not* using your PC? Once you become familiar with Scheduled Tasks, we're sure you'll find more uses for it than simple drive cleanups. ▐▌

BY MICHAEL SWEET

IT'S TOTALLY AUTOMATIC

UPDATE SETTINGS IN WINDOWS

Like most other complex systems, a personal computer matures and evolves over time. What starts as little more than a beige box and a pristine copy of Windows eventually becomes a vast conglomeration of hardware peripherals and third-party software. Holding it all together is a steady influx of new code that brings the old code up to current standards. Each batch of new code is called an update.

An update typically performs one of four functions: Either it fixes a bug, patches a security lapse, resolves a compatibility issue, or adds new functionality. Users who want to benefit from optimal system performance must be fastidious about obtaining all available updates. Fortunately, Microsoft makes it easy to do so. The company has equipped its latest versions of Windows with updating tools that can automate the process of obtaining and installing updates for the OS (operating system). It also has developed a Web site that makes it easy for users to manually retrieve Windows updates.

Users who want to benefit from optimal system performance must be fastidious about obtaining all available updates.

Automatic Updates

The updating tool of choice for many computer users is Automatic Updates, which was introduced with Windows Me and souped up in the subsequent releases of Windows XP and Windows XP SP2 (Service Pack 2). You can access Automatic Updates through the Control Panel or by right-clicking My Computer, selecting Properties, and opening the Automatic Updates tab in the System Properties dialog box. Automatic Updates is also accessible through the Security Center in WinXP SP2. In any case, you must be logged in as an administrator to modify the update settings.

When activated, Automatic Updates enables your computer to share information about your system, such as which version of Windows you use and which edition of Windows Media Player you have installed, with the Windows Update Web site. The site uses this information to identify the updates that are relevant for your computer and then transmits an up-

date alert back to your system. How your system responds to the alert depends on the settings you selected when configuring Automatic Updates.

Those settings vary slightly among the three operating systems (WinXP, WinXP SP2, and WinMe). Generally speaking, you can configure Automatic Updates to run in one of either three or four updating modes:

Automatic (Recommended)

Exclusive to WinXP SP2, the Automatic mode will locate, download, and install all available high-priority updates that apply to your system. Better yet, it will do so without interrupting your computing session—the entire update process takes place in the background. Indeed, Automatic mode will disrupt your computing session in two cases only: one, if the update requires your affirmation to an EULA (End-User License Agreement); and two, if the update requires a restart. Follow the on-screen instructions in both instances to complete the installation.

Download Updates For Me But Let Me Choose When To Install Them

Also labeled as Download The Updates Automatically And Notify Me When They Are Ready To Be Installed in WinXP and Automatically Download Updates And Notify Me When They Are Ready To Be Installed in WinMe.

This option locates and downloads all available high-priority updates for
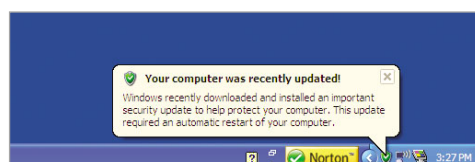
Automatic Updates can download and install the latest high-priority updates without disturbing your computing session. It will display an alert, however, if it needs to restart your system.

your system. When the download is complete, Automatic Updates places its icon in the Taskbar's Notification Area and releases a brief alert message indicating that updates are ready to be installed. Click the icon to access the Automatic Updates window.

You can launch the installation immediately by selecting the Express Install or Install option. If you prefer to review the updates first, select the Custom Install or Details option. All updates are selected for installation by default. Click an update once to read a brief description of it; click it again to deselect it and exclude it from the installation. Follow the on-screen

instructions to complete the installation. You can use your computer while the updates are installed.

If you deselected one or more updates in WinXP SP2, a Hide Updates window will appear on-screen. Click OK if you intend to install the deselected updates later. The Automatic Updates icon will then remain in the Notification Area as long as these updates remain available. If you never intend to install the deselected updates, however, then you should select Don't Notify Me About These Updates Again before clicking OK in the Hide Updates window. The unwanted updates will remain on your computer, but Automatic Updates will not give you the option of installing them. If you ever want to install a hidden update, all you have to do is return to the Automatic Updates control panel and click the Offer Updates Again That I've Previously Hidden option.

Notify Me But Don't Automatically Download Or Install Them

Also labeled as Notify Me Before Downloading Any Updates And Notify Me Again Before Installing Them On My Computer in WinXP and Notify Me Before Downloading Any Updates And Notify Me Again When They Are Ready To Be Installed in WinMe.

When this option is selected, Automatic Updates will place its icon in the Notification Area to alert you about available updates. You have to click the icon and follow the on-screen instructions to download and install those updates. You can select which updates you want to install, and you can use your computer for other purposes while Automatic Updates retrieves and installs the updates. Hover your mouse

pointer over the Automatic Updates icon during a download or installation to view a progress indicator. You can pause a download by right-clicking the Automatic Updates icon in the Taskbar's Notification Area and selecting Pause. You can restart the download by right-clicking the icon again and selecting Resume.

Turn Off Automatic Updates

Also labeled as Turn Off Automatic Updating in WinXP and WinMe. Selecting this option will disable Automatic Updates on your computer.

Windows Update Control Panel

With the release of Windows Vista, Microsoft bid adieu to Automatic Updates and introduced the Windows

If you set Automatic Updates to download but not install your updates, you will receive an alert each time updates become available for installation.
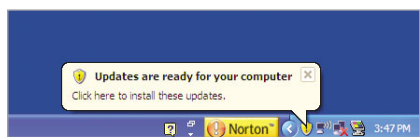
Update control panel. The new updating utility, which looks and acts a lot like its predecessor, integrates closely with the Windows Update Web site and provides several extended updating capabilities. Windows Update can download recommended updates in addition to high-priority updates, for instance, and it enables you to schedule system restarts. You can access Vista's Windows Update through the Control Panel or by typing **windows update** in the Start Search box.

Windows Update Web Site

The original source for system updates, the Windows Update Web site

continues to provide access to all available Windows updates. When you visit the site at update.microsoft.com, it will briefly assess your PC settings and then provide two update options: Express, which expedites the process of installing all available high-priority updates; and Custom, which enables you to selectively install optional updates—including some hardware drivers—as well as high-priority updates. You should visit the Windows Update Web site at least once per week if you have disabled the automatic updating capabilities in Windows.

Beyond Windows

Automatic Updates, the Windows Update control panel, and the Win-

dows Update Web site can help you obtain many important updates for your system. Unfortunately, they cannot deliver all of the updates you need. For optimum system performance, you must pay regular visits to the Web sites of your other software developers and hardware manufacturers to obtain updates for the various programs and peripherals that constitute your PC. These third-party updates will work together with the Microsoft-supplied updates to help your system run smoothly as it continues to evolve and mature. ▌▌

BY JEFF DODD

PC PROTECTION

TWEAK SYSTEM SECURITY SETTINGS

Securing your computer can seem like protecting yourself from a swarm of hornets in a telephone booth—threats come from seemingly every direction, and two hands simply aren't enough to swat away potential invaders. Security programs and components can certainly help matters, but installing and forgetting is not an option—unless you want to continue to live with risks.

Settings That Impact System Security

Most security tools are installed with default settings that aim to provide a basic level of protection. But many of them require tweaking to ensure that they're delivering the maximum level of protection, so we've

the June 2007 *Smart Computing* article "Vista's Security Tools" and the June 2007 *Reference Series: All About Vista* article "Working With Windows Security Center.")

To access the Security Center in WinXP, click Start and Control Panel and double-click Security Center. If you're using Windows Firewall or a third-party firewall, you'll see a green On message to the right of the Firewall box. If Windows Firewall is disabled and you're not using a third-party firewall, a red Off message will appear, along with a warning icon in your System Tray. These behaviors are the same within the Virus Protection section, which monitors your system for a third-party antivirus application.

To avoid receiving warnings from the Security Center, make sure you're

you should turn off Windows Firewall). If you're using Windows Firewall, you can tweak its behavior through settings on the Exceptions and Advanced tabs.

The Security Center also provides easy access to Windows update settings—just click Automatic Updates at the bottom of the main window. We recommend that you select the Automatic option for automatically downloading updates, but you can still select the time of day (or night) you'd like Windows to download and install them. Alternatively, you can instruct Windows to download the updates, but you can choose to install them whenever you'd like. (For more information on Automatic Updates, see "It's Totally Automatic" on page 52.)

Browsers. Browser security settings are an important piece of the overall PC security puzzle. However, the complexity of these settings can vary depending on the browser you use. We'll cover two popular browsers—Internet Explorer and Firefox.

Of all security-related settings, those involved with your antivirus application are some of the most important.

assembled several core security settings to help guide you on your quest to ultimate PC security.

Windows. Before the release of SP2 (Service Pack 2), not only did Windows XP have few security tools, but those that did exist weren't necessarily easy to find. SP2 fixed all of that with its new Windows Security Center, which checks whether you're running a firewall and an up-to-date antivirus program and ensures that automatic updates are properly configured. (With the introduction of Windows Vista, even more improvements and additions were made to the Windows Security Center. For information about Vista's security features, refer to

using a firewall and an updated antivirus application. If you're using third-party programs, we recommend that you inform the Security Center that you'll monitor your own applications, because this component doesn't always do a great job of recognizing non-Microsoft programs. To do this, click Firewall (or Virus Protection) and click the Recommendations button. Select I Have A Firewall Solution (or Antivirus Program) That I'll Monitor Myself. Click OK.

At the bottom of the Security Center, click Windows Firewall to access its settings. On the General tab, you can turn the firewall on or off (if you're using a third-party firewall,

To access the security settings in IE7, open the Tools menu, click Internet Options, and select the Security tab. You can use the slider to select a zone security level. For most users, the Medium-High setting will suffice, but if you need maximum security, choose the High setting. With any of these levels, you can click the Custom Level button to select individual settings for ActiveX, Java, downloads, and other content and functions.

On the Security tab, you can also find options for defining trusted sites and restricted sites. For example, select the Restricted Sites icon and click

the Sites button. To prevent users from accessing a certain Web site, simply enter the site's URL into the Add This Website To The Zone field. Click Add and click Close. You can use the same procedure to add trusted sites.

Firefox includes similar security settings that you can access by clicking Tools, clicking Options, and selecting the Security icon. However, unlike IE7, Firefox doesn't use a zone scheme, but instead implements general security principles that help to protect the average browser user. You can tweak the individual settings by clicking the Exceptions buttons for add-ons, cookies (under Privacy), and pop-up windows (under Content).

Antivirus. Of all security-related settings, those involved with your antivirus application are some of the most important. If you do not have your antivirus application properly configured or if you don't regularly update the virus definitions, your PC will be at serious risk for virus infection.

Most antivirus applications feature the same basic abilities and settings, so we'll use the popular AVG Anti-Virus Free Edition (www.grisoft.com) as an example. The Control Center of AVG provides easy access to all of the program's components, and from here you can access and alter all of the component settings.

The Resident Shield option contains settings that instruct the application how to behave when files are accessed. In the Resident Shield dialog box, select Turn On AVG Resident Shield Protection, and beneath it, be sure Scan Infectable Files is selected. You'll also have the option of scanning all files each time they're accessed, but for the most efficient performance-protection ratio, having the Resident Shield scan only infectable files is appropriate. Under Additional Options, you should also select Scan Floppy Drives and Use Heuristic Analysis. Click OK to confirm the settings.

The Update Manager option allows you to tweak the application's behavior in regards to virus definition updates, including whether AVG should apply a downloaded update upon the next computer restart or update immediately. With any antivirus application, it's best to select an option that offers immediate updates to ensure that your computer is instantly protected by the latest definitions.

The E-mail Scanner option includes settings for scanning incoming and outgoing emails. On the Plugins tab in the E-mail Scanner dialog box, you'll see installed plug-ins for any email applications you use. Click the Configure button to see the settings for email scanning. Under E-Mail

Scanning, select Check Incoming Mail and Check Outgoing Mail. Under Scanning Properties, select Use Heuristic Analysis and Scan Inside Archives.

Finally, on the main window of the Control Center, select Scheduler and then click the Scheduled Tasks button at the bottom of the window. Select Test Plan In Basic Mode and click Edit Schedule. Under Scheduled Time, click Periodically Start Scheduled Antivirus Test and select a daily time from the pull-down menu. Here, you can also choose whether AVG should start a scan immediately the next time the computer starts up if the originally scheduled time is missed. Click OK to confirm. You can also alter the update checks by selecting Update Plan In Basic Mode and clicking Edit Schedule.

Firewalls. Most of today's third-party firewalls come preconfigured with settings designed to work with most Windows environments. However, firewalls still must learn which programs for which it can and cannot allow network access. Typically, you'll see a pop-up warning that indicates a program is trying to access the Internet. You'll be given the option to allow or deny access, and firewalls also let you decide whether to always allow access to a given program so that you don't receive the pop-ups for that program in the future.

You can also enter the firewall's interface and change any settings for individual programs. For example, in the free Comodo Firewall Pro (www.personalfirewall.comodo.com), you can click Application Monitor to see a list of all programs that have previously
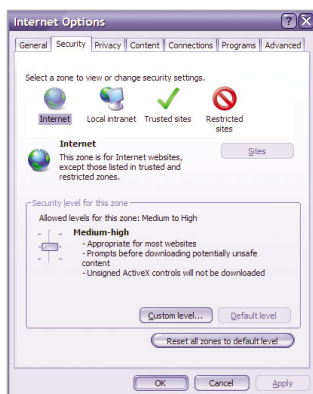
In Internet Explorer, you can select a preconfigured security level, but you can still tweak that level by clicking the Custom Level button and making changes.

tried to access the Internet, along with the current permission level (Allow or Block). To change this level, double-click the application listing and on the General tab, use the Action pull-down menu to select Allow, Block, or Ask (which asks for permission each time the program attempts to access the Internet).

**Antispyware.** For the most part, antispyware applications take care of themselves, but some of them do need special attention. In particular, free programs such as Ad-Aware (www.lavasoft.com) and Spybot Search & Destroy (www.safer-net working.org) don't offer much for scheduled definition updates, but there are some settings you can deploy to make sure you're using the most up-to-date definitions before each scan.

For example, you can configure Ad-Aware 2007 to not only perform an antispyware scan when you start the program, but you can also set it to retrieve updated definitions before the scan. In the main Ad-Aware window, click the Settings button at the left and then choose the Auto Scans tab. Here, you can instruct Ad-Aware to perform Smart or Full scans on Ad-Aware startup or Windows startup (or both), and under Safety, you can click Update Definitions File At Startup to ensure the program is automatically updated before the scan begins.

In Spybot S&D, click the Mode menu and click Advanced Mode. At the bottom left, click the Settings tab and then click Settings in the left-hand pane. Scroll down to the Web Update section and select Search The Web For New Versions At Each Program Start.

Email. If your antivirus application is configured to scan incoming and
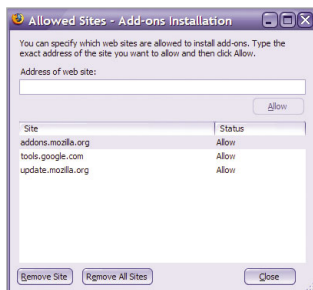
Firefox lets you specify Web sites that are allowed to install add-ons to the browser.

outgoing messages, then your email environment will be protected from most threats. However, most email clients include additional security settings you can enable that can further protect your email activities.

For example, in Microsoft Outlook, click Tools, click Options, and select the Security tab. The Zones Settings button takes you to the same Internet Options dialog box found in IE7 that lets you select a security zone most appropriate for your usage. In the case of Outlook, the zone you select will help protect against threats that originate in HTML (Hypertext Markup Language) messages.

Outlook also includes the option to block the automatic downloading of pictures. According to Microsoft, when the email client automatically downloads and displays a picture included in an HTML email message, the client must communicate with an external server, in turn informing that server that your email address is valid. This behavior could leave your email vulnerable to receiving more spam. If you want to limit your spam exposure, it's a good idea to disable automatic picture downloading.

On the Security tab, click the Change Automatic Download Settings and then select Don't Download Pictures Or Other Content Automatically In HTML E-mail. After selecting this option, you can choose to permit downloads from senders (and to recipients) defined as Safe Senders and Safe Recipients in your

Junk E-mail filter. You can also choose to allow downloads from Web sites that are listed in your Trusted Zone.

Make A Note

Unfortunately, there's no easy way to save all of your security settings, primarily because they're spread out across different applications and components. In general, it's always wise to enable System Restore on your Windows hard drive, because this can help preserve most settings in case you encounter a serious problem with your operating system. (For instructions on how to use System Restore, see "System Settings Central" on page 48.)

Antispyware applications generally don't require much maintenance, but you can make them run more efficiently by instructing them to automatically obtain definitions at startup.

Also, you can create a text file that notes the settings you've configured for your various security programs and components. In some cases, this step can cause more hassle than it's worth, because most security programs include default values that work for many users, and the programs can be tweaked from there. But if you're afraid you won't remember exactly how you tweaked a certain program—and it happens to the best of us—note those settings and then secure those, as well. ▐▌

BY CHRISTIAN PERRY

WORKING WITH WEB SETTINGS

TUNE UP YOUR INTERNET OPTIONS

When it comes to adaptability, the Internet is tough to beat. You can communicate with others (via text or voice), conduct research, watch videos, listen to music, keep up-to-date on the latest news, and perform a number of other tasks. Additionally, your PC can connect to the Internet using a variety of methods. As you may expect with such customization, there are many different settings to manage the network connections, Web browsers, and Internet-enabled applications on your computer. In this article, we'll help you identify and edit the most critical Internet settings on your PC, as well as show you how to back up your configurations.

Manage Your Network Connections

The networking wizards found in Windows XP and Windows Vista walk you through the process of setting up your network connection, but because networking in Windows is not a perfect science, it helps to understand how to view and tweak your connections.
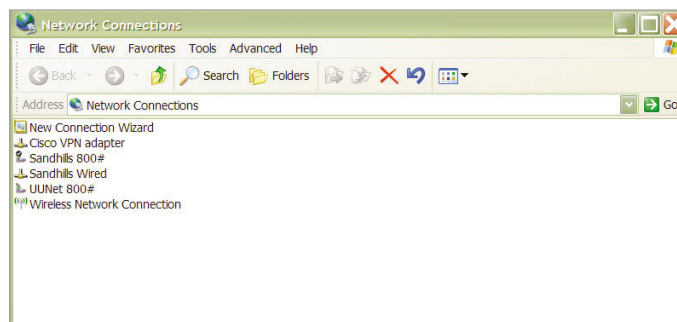
In WinXP, click Start, choose Control Panel, and double-click Network Connections. The icons in the Network Connections window represent the various connections your PC can use to access the Internet; each icon is identified by the name you entered while using the New Connection Wizard.

To view the current details about a connection, such as the speed at which you're connected, double-click your LAN (local-area network) or dial-up connection. From the General tab, you can enable or disable the connection, as well as view the connection's status and speed. Click the Support tab, and

you can view your current **IP** (**Internet Protocol**) **address**, which is a unique set of numbers that identifies your PC on the Internet and allows you to transmit and receive data. Connection problems can often be traced back to an invalid or absent IP address. To automatically fix connection problems, the Support tab of WinXP includes a Repair button that resets your network adapter and renews your IP address.

From the Network Connections window, you can also manage the settings of your NIC (network interface card) or modem. Right-click your LAN or dial-up connection and click the Properties button. The items listed above the Install, Uninstall, and

Properties buttons are the different network protocols your NIC or modem uses to connect with your network. For instance, TCP/IP (Transmission Control Protocol/Internet Protocol) is the key protocol used to assign your IP address. If you have trouble connecting to the Internet, select the TCP/IP protocol, click the Properties button, and make certain your TCP/IP settings reflect the settings listed in the printed material from your Internet service provider.

When it comes to networking in Vista, the Network And Sharing Center provides the controls to manage your

Internet access, as well as to configure the shared resources on your PC. Click the Start button, type **Network And Sharing Center** in the Search box, and press ENTER. To view the connections your PC uses to connect to the Internet, click the Manage Network Connections link in the upper-left corner. To view network data about your connection, such as your IP address, double-click your LAN or dial-up connection and click the Details button. If you need to change your connection settings, click the Properties button (you may also need to enter your administrator password or confirm the User Account Control prompt). The Network And Sharing

Center also features a Diagnose And Repair link to help you troubleshoot connection problems.

Wireless Configuration

If your computer includes hardware for connecting to wireless networks, both WinXP and Vista feature options in the Network Connections window that let you view and connect to the wireless networks within range of your PC. To establish a wireless connection in WinXP, double-click the Wireless Network Connection

icon and select your wireless network. Vista simply displays the available wireless networks in your Network Connections window. Because wireless network traffic is handled differently than wired connections, you'll need to consult the instructions for your wireless router to view and edit your network settings. Generally, you'll need to use a Web browser or install configuration software to access your router's configuration menu.
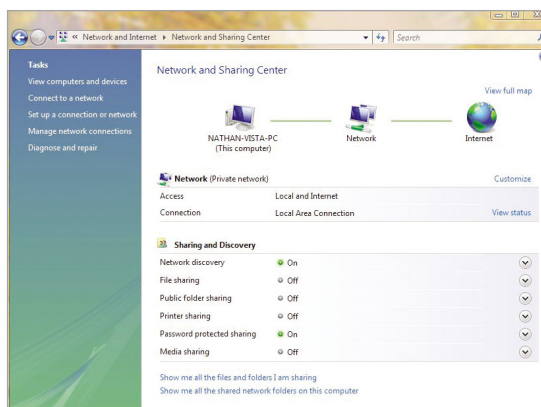
In Windows Vista, the Network And Sharing Center lets you manage your network connections, as well as the shared resources on your PC.

Back Up Your Internet Settings

Because you may invest a lot of time creating and configuring your Internet access settings, we suggest that you use the Files And Settings Transfer Wizard (built into WinXP) or Windows Easy Transfer (built into

the disc, select Perform Additional Tasks from the menu, and click Transfer Files And Settings), or you can use a computer that runs WinXP to create a Wizard Disk. To use the latter option, click Start, All Programs, Accessories, Systems Tools, and Files And Settings

steps to load your old, functional computer settings.

Working With Browser Settings

Nearly every Web browser includes a Tools menu that features options to modify the general appearance, security, privacy, and file rendering capabilities of your Web browser. For this article, we'll use Internet Explorer as an example. To configure the browser settings of Internet Explorer, open IE, select the Tools menu, and click Internet Options. In the Internet Options window, you'll see tabs that contain different Internet settings. Although we don't have room to cover all available options, we'll address several critical Internet settings.

General. On the General tab, you'll find several options to adjust the basic

The Security tab lets you set a security level and manage how strictly IE limits the

Vista) to back up the Internet and computer settings on your computer.

Although theses utilities are designed to transfer files and settings between computers, they can also back up files and settings onto a CD, external hard drive, or the PC's hard drive. The FSTW (Files And Settings Transfer Wizard) and Windows Easy Transfer can back up your LAN and dial-up connection settings, Internet Explorer Favorites, IE browser settings, and many other settings on your PC. Note that Windows Easy Transfer works with Win2000/XP/Vista. However, it only transfers files in Win2000, not settings; so, you'll need to use the FSTW to back up Internet settings from older versions of Windows. For more about Windows Easy Transfer, see the "Vista Helps You Move" sidebar in "A Windows Makeover" on page 60.

To run the FSTW on a computer that runs an older operating system, you'll need a WinXP system CD (insert

Transfer Wizard. Click Next, select New Computer, and click Next again. Select I Want To Create A Wizard Disk In The Following Drive and use the drop-down menu to select the floppy drive on the WinXP computer.

Once the FSTW is running, click Next, choose Old Computer, and click Next. The wizard then prompts you to select the method you want to use to transfer (or back up, for our purposes) your settings. Select the Other radio button, click the Browse button, choose an appropriate location on your hard drive, and click Next. (Note that you could also export your settings to a network location or external storage device.) Select the Settings Only radio button and click Next. The FSTW will then back up your settings to your hard drive. If you ever need to reload your Internet settings, run the FSTW, click Next, and select New Computer. You can then follow the FSTW

functionality and appearance of IE. The Home Page heading lists the Web site that loads when you open IE or click the Home icon. To change your home page, enter the URL of your preferred Web site into the dialog box or visit the Web site and click the Use Current button. Because IE7 supports tabbed browsing (a feature that lets you open multiple Web pages in the same browser window), you can enter multiple URLs and IE7 will load each home page in a separate tab.

From the General tab, you can also remove the cookies, copies of Web pages, images, passwords, and form data that IE collects. To clear cached data in IE6, click the Delete Cookies and Delete Files buttons under Temporary Internet Files. To erase stored files in IE7, click the Delete button under Browsing History. From the Delete Browsing History window, you can choose to delete only specific types of files, or you can remove all the IE data by selecting

the Delete All button. Both IE6 and IE7 feature a Settings button that lets you configure how much space IE can use to store files.

The General tab in IE7 also includes controls for the tabbed browsing and search box options. Click the Settings button under the Tabs heading to configure your tabbed browsing options, such as Warn Me When Closing Multiple Tabs and Open Only The First Home Page When Internet Explorer Starts. If you click the Settings button under the Search option, you can configure which provider IE7 uses to perform the searches you enter into the search box.

Security. Even if you have antivirus, antispyware, and firewall protection on your PC, some viruses and spyware can use the small programs Web sites run, such as ActiveX Controls, Java applets, and scripts, to funnel malware into your PC. The Security tab lets you

lower than Medium for any zone. Click the Custom Level button to select individual settings for ActiveX, Java, downloads, and other content and functions. The Internet zone controls the security level for any Web site not listed in the other security zones. The Local Intranet zone sets the restriction level of Web sites on your local network, such as a business intranet. The Trusted Sites zone allows you to enter specific Web sites that you feel are safe and shouldn't require your permission for interactive features. Alternatively, the
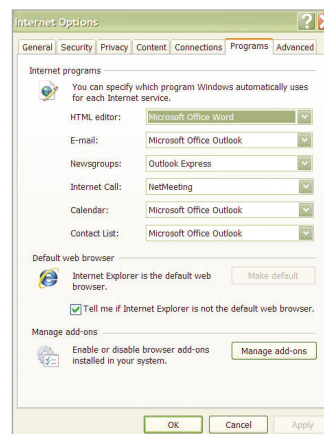
You can manage the programs Internet Explorer uses to open different files on the Internet from the Programs tab.

and accessing the cookies on your PC. When you use the slider to select a privacy level, you'll see a description of the types of cookies that each level blocks.

The Privacy tab also includes controls to configure the pop-up blocker integrated with IE. To turn on the pop-up blocker, select Turn On Pop-up Blocker (Block Pop-ups in IE6). If you find that the pop-up blocker prevents you from accessing some Web sites, click the Settings button and lower the pop-up blocker Filter Level or add the Web sites' URLs into the Allowed Sites list.

Programs. The Program tab lets you customize the programs that Windows runs when you select certain Web functions that require the use of another program. For example, if Outlook Express opens when you click an email address instead of Microsoft Outlook, select Microsoft Office Outlook in the E-mail drop-down menu. IE also includes a Manage Add-ons button to configure the add-on programs that work with IE. To control add-ons, click the Show drop-down menu. To turn an add-on on or off, click the entry and select the Enable or Disable radio button.

way Web sites interact with your computer.

You can use the Files And Settings Transfer Wizard built into Windows XP to back up your network connections and Internet Explorer settings, even on PCs running Windows 98, Windows 2000, and Windows Me.

set a security level and manage how strictly IE limits the way Web sites interact with your computer. You could select the highest restriction level to block nearly all the risky content, but the trade-off would be that some sites may not load properly. We suggest you try a couple of different security levels to find a setting you're comfortable with.

Both IE6 and IE7 feature four security zones (Internet, Local Intranet, Trusted Sites, and Restricted Sites), and you can configure each zone to a different level of security. Note that in IE7, you cannot set a security level
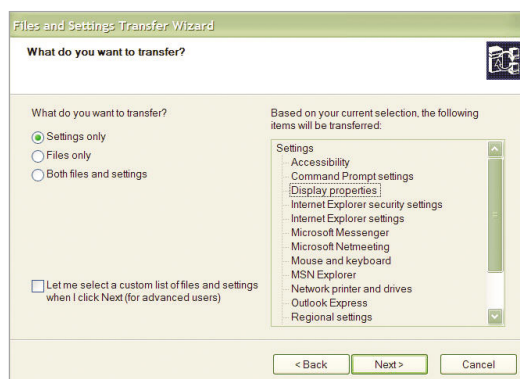
Restricted Sites zone lets you enter Web sites you feel may contain dangerous features.

Privacy. When you visit a Web site, IE may store some data you enter, such as the ZIP code you enter into www.weather.com, in a cookie file. Because cookies may contain records of the logon you use or the products you viewed, the files can pose a security risk. Click the Privacy tab to manage how IE blocks Web sites from saving

Reset

If you change your mind about the configuration of an IE setting, most options include a Use Default or Default Level button to return your settings to a standard configuration. Additionally, you can restore the default settings for all your IE options by selecting the Advanced tab and clicking the Reset or Restore Defaults button. ❚❚

BY NATHAN LAKE

A WINDOWS MAKEOVER
## ADJUST APPEARANCE & INTERFACE

What's the first thing you notice when you look over the shoulder of a Windows guru? His operating system probably doesn't look or behave anything like the one installed on your computer. How did he get all of those handy toolbars on the Taskbar? Why is his mouse cursor so responsive, while yours seems to be stuck in molasses? Where did he get that cool wallpaper, and how on earth did he get it to fit exactly on the screen? You'd think it would take special software and a lot of savvy to customize everything so extensively, but you can make Windows look and act nearly any way you like by adjusting some simple settings.

Of course, you have to find all of the relevant settings, which are often scattered around and tucked away in odd places. Then you have to make sense of what all of those slider bars, checkboxes, and radio buttons really do. Fortunately, adjusting all of these

properly adjusting your monitor. The default settings rarely work well, so focus on these tweaks before moving on to any of the others because they affect the way everything else looks.

Resolution. The resolution tells you how many individual dots of color (called pixels) make up the
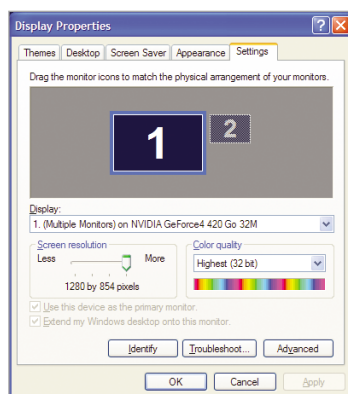
Matching Windows' resolution setting to the optimal setting for your monitor maximizes image quality.

optimal resolution that is recommended in the manual.

You can change this setting in Win98 and WinXP by right-clicking the Desktop, clicking Properties, and selecting the Settings tab. Use the Screen Resolution (Screen Area in Win98) slider to choose a resolution and then click Apply. To adjust resolution in Vista, right-click the Desktop, click Personalize, and click Display Settings. Use the Resolution slider to select the appropriate resolution and click Apply.

Refresh rate. The refresh rate represents the number of times per second (measured in hertz, or Hz) the image displayed on the monitor is updated. Use the setting recommended in your monitor's manual.

To adjust this setting in Win98, right-click the Desktop, click Properties, select the Settings tab, and then click Advanced. Select the Adapter tab, use the drop-down menu to select the refresh rate, and

You can make Windows look and act nearly any way you like by adjusting

settings is really easy once you know where to look. We'll detail all of the most important adjustments here so you know exactly what each one does.

This article assumes you have Windows XP with Service Pack 2 installed, but we've also included instructions for Windows 98 and Windows Vista where appropriate.

Configure The Monitor

When it comes to making Windows look its best, half the battle is in

screen. For example, a resolution of 1,680 x 1,050 means there are 1,680 vertical columns and 1,050 horizontal rows.

LCD monitors have a fixed number of pixels, which is often referred to as their native resolution. Use that setting to make the monitor look its best, as lower settings force the monitor to blow up the image, destroying detail. CRT (cathode-ray tube) displays support a variety of resolutions without compromising quality, but they generally have an

click Apply. WinXP users should right-click the Desktop, click Properties, select the Settings tab, and then click Advanced. Select the Monitor tab and use the Screen Refresh Rate drop-down menu to select a refresh rate before clicking Apply. In Vista, right-click the Desktop, click Personalize, and click Display Settings. Click Advanced Settings, click List All Modes, and then select the entry that matches the resolution and refresh rate you want to use.

Tweak Windows' Appearance

If you want to change the look of Windows, a few simple clicks in the right places will make it practically unrecognizable.

Pick a theme. Themes offer a quick way to completely transform the way Windows looks, and individual elements can then be adjusted after the theme is applied.

To select a theme in WinXP, right-click the Desktop, click Properties, and select the Themes tab. Select a theme from the list and click OK to apply it. Win98 users should open the Start menu, expand Settings, and click Control Panel. Double-click Desktop Themes and use the Theme drop-down menu to select a theme. Use the Settings checkboxes to modify it if necessary and then click Apply. In Vista, right-click the Desktop, click Personalize, and click Theme. Click entries in the Theme drop-down list to preview them and then click Apply.

some simple settings.

Apply wallpaper. Whether you want to put a picture on the Desktop or just switch it to a solid color for better contrast with icons, the process is simple.

To change the wallpaper in WinXP or Win98, right-click the Desktop, click Properties, and select the Desktop tab (or the Background tab in Win98). Select a picture using the Background list (called the Wallpaper list in Win98) or click Browse to manually search for one. Click OK. Use the Position drop-down menu

(labeled Display in Win98) to stretch, tile, or center the picture if it doesn't quite fit the screen. You can also select None in the Background list and then use the Color drop-down menu in WinXP or the Pattern button in Win98 to use a solid color.

In Vista, right-click the Desktop, click Personalize, and click Desktop Background. Use the drop-down Picture Location menu or the Browse button to find a picture (Vista also

supports videos and animations) and then use the radio buttons at the bottom to tell Windows if you want to stretch, center, or otherwise position the image. Choose Solid Colors in the drop-down menu if you don't want to use a picture, video, or animated background. Click OK when you are finished.

Adjust font size. If the monitor's native resolution is so high that text becomes very small, you can adjust the default font size to compensate. In WinXP, right-click the

Desktop, click Properties, select the Appearance tab, and click Advanced. Select any items in the drop-down menu that incorporate text (such as Active Title Bar) and use the Size box in the Font section to make the text larger or smaller.

Win98 users need to right-click the Desktop, click Properties, select the Settings tab, and click the Advanced button. Select the General tab and use the Font Size drop-down menu to
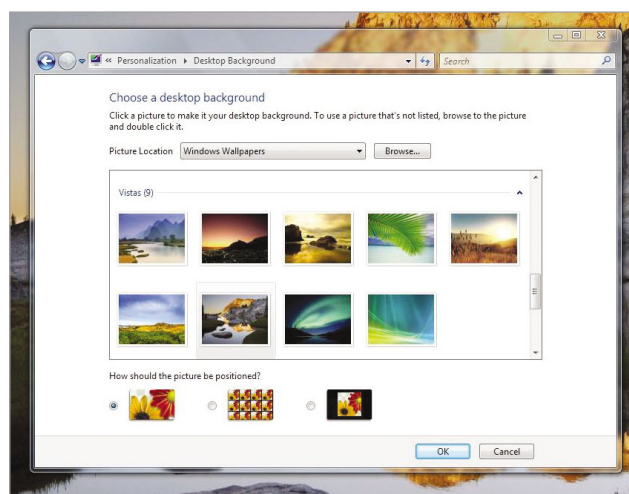
You can choose picture wallpaper or use a solid color for Windows' Desktop background. In Windows Vista (pictured here), you can also use videos and animations as Desktop backgrounds.

select Large Fonts or Other (if you want to create a custom setting). In Vista, right-click the Desktop, click Personalize, and click Adjust Font Size (DPI) under Tasks. Use one of the two provided scales or click Custom DPI to scale it to your exact preference.

Adjust Audio Settings

There's not a whole lot you can do in this department, but if you're tired of the clicking sound Windows makes every time you navigate to a

new Web page in Internet Explorer or you want to adjust volume levels for various types of output, the settings are available.

Change sounds. You can turn off or adjust any sound Windows makes, from error message beeps to email notifications. To access the settings in WinXP, click Start, click Control Panel, double-click Sounds And Audio Devices, and select the Sounds tab. Use the Sound Scheme drop-down menu to select an entirely different set of sounds, or click individual entries in Program Events and then assign sounds to them using the Sounds drop-down menu. Click the Play arrow button to preview sounds and then click the Apply button.

In Win98, click Start, expand Settings, click Control Panel, and then double-click Sounds. Select a scheme using the Scheme drop-down menu or click individual entries in the Events box and then use the Name drop-down menu to assign new sounds. The Play arrow button lets you preview sounds before you click Apply.

In Vista, click Start, click Control Panel, and double-click Sound. Select
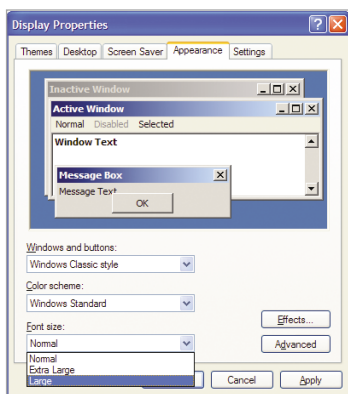
Text on modern monitors can be hard to read unless you tweak the font size.

the Sounds tab and use the Sound Scheme drop-down menu to select an entire theme or click any individual entry in the Program box and then use the Sounds drop-down box to assign a sound to the selected entry (select None for no sound). Click Apply when you finish.

Customize the volume. There's much more to Windows than the master volume control. In Win98 and WinXP, double-click the speaker icon in the System Tray to launch a more detailed volume control. Vista users need to click the speaker icon and

click Mixer. Use the sliders to individually adjust the computer's various sound outputs.

Manage The Taskbar & Start Menu

You launch and manage most programs using the Taskbar and Start menu, so it pays to know how to configure these areas.

Add or remove toolbars. Toolbars are shortcuts that integrate with the Taskbar, and you can use the ones that come with Windows, the ones that come with certain programs, or create your own. This procedure works the same for all OSes (operating systems) covered in this article. Right-click the Taskbar, expand the Toolbars menu, and click the toolbar you want to enable or disable. Click New Toolbar and select a folder if you want to create a customized toolbar.

Adjust the Start menu. Most Windows tasks begin at the Start menu, and adjusting this feature is easy. Right-click the Taskbar, click Properties, and select the Start Menu Programs tab in Win98 or the Start Menu tab in WinXP and Vista. Win98 users can then click the Add, Remove, or Advanced buttons to modify entries in the Start menu.

In WinXP and Vista, if you prefer older versions of the Start menu, select the Classic Start Menu radio button. Regardless of your choice, click Customize to access general and advanced settings that let you

Volume settings for a variety of different types of output are customizable, so you don't always have to tweak the main volume control.

Vista Helps You Move

If you plan to upgrade to Windows Vista but don't want to go through the pain of re-establishing all of the settings you used in Windows XP, there's hope. Vista comes with a tool called Windows Easy Transfer that brings all of your files and settings over to Vista while leaving them perfectly intact on the original OS in case something goes awry during the procedure.

Two computers using Easy Transfer can

be linked via an Easy Transfer USB cable or a home network. Alternatively, you can put the settings on a removable storage device and then load them on the new computer or burn them to CD or DVD for copying. You can transfer files and settings from a computer running Windows 2000 (files only), WinXP, or Vista to a computer that has any version of Vista installed. The software transfers user accounts, files,

folders, email, photos, videos, music, program settings, and Internet settings, along with Windows settings.

If you plan to do this, visit the Vista Web site at www.windowsvista .com and click the Buy Or Upgrade button. Look for the Windows Easy Transfer link at the bottom of the page, click it, and then download the Windows Easy Transfer Companion software that guides you through the process. ▌

establish how the Start menu looks and acts. For example, if you have a high-resolution monitor and Start menu items are too small, select the Large Icons (Use Large Icons in Vista) radio button.

Establish Taskbar settings. The Taskbar itself has a variety of settings depending on the OS you use, and they are always accessed by right-clicking the Taskbar and clicking Properties. In Win98, make sure the Taskbar Options tab is selected, and in WinXP and Vista, make sure the Taskbar tab is selected. Use the checkboxes to enable or disable the various features.

You can also control various aspects of the System Tray (called the Notification Area in WinXP and Vista) from this tab in Win98 and WinXP. In Win98, the only thing you can do is select a checkbox to show or hide the clock, but in WinXP, you can also tell Windows to hide inactive icons. Vista users can select the Notification Area tab to hide inactive icons and display or hide the clock, volume icon, network icon, and power icon.

Modify the Quick Launch toolbar. The Quick Launch toolbar makes it easy to access frequently used programs by placing a program icon in the Taskbar area. To enable the Quick Launch toolbar, right-click an area of the Taskbar, expand the Toolbars menu, and select Quick Launch. If you want to add shortcuts to the Quick Launch menu in any OS covered here, drag the program icons there and drop them. You can rearrange icons that are already there by dragging and dropping, as well. To remove an icon, right-click the shortcut and click Delete.

Adjust Input Devices

Computer technology has changed over the years, but the mouse and keyboard remain the primary methods used to interact with a PC. Adjusting their settings can dramatically increase
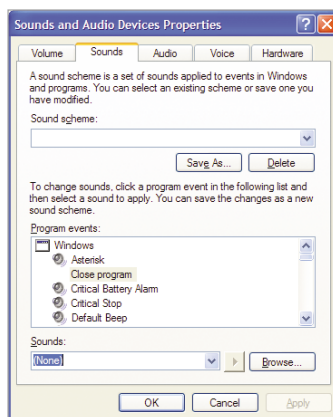
If a Windows sound gets on your nerves, you can change it or disable it completely.
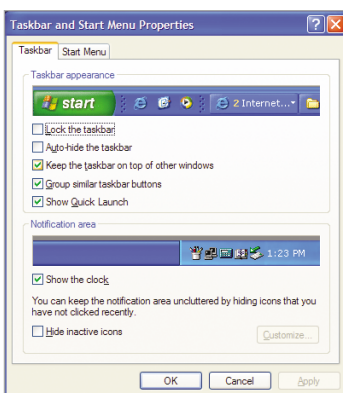
Locking or otherwise adjusting the Taskbar can make Windows much easier to work with.

productivity because these devices are used so frequently.

Change the pointer speed. Pointer speed is the distance the mouse cursor moves relative to how far the mouse is moved, and fine-tuning it lets you navigate Windows more accurately. In Win98, click Start, expand Settings, click Control Panel, double-click Mouse, and select the Motion tab. Adjust the Pointer Speed slider until the cursor responds the way you want it to and click OK.

In WinXP and Vista, click Start, click Control Panel, double-click Mouse, and then select the Pointer Options tab. Move the Motion slider toward Slow or Fast, depending

on your preferences, and then click Apply to save your changes.

Turn down the key repeat rate. If you hold down a key (accidentally or otherwise) Windows repeats the selected character as if you are typing it over and over again. You can change the rate it does this using sliders in all three OSes. To access the settings in Win98, click Start, expand Settings, click Control Panel, and double-click Keyboard. WinXP and Vista users can click Start, click Control Panel, (click Hardware And Sound in Vista), and then select Keyboard. Use the Repeat Delay slider to tell Windows how long to wait before repeating keys that are held down, and use the Repeat Rate slider to tell Windows how quickly to repeat keys once the repeat delay has passed.

More Tools

All of the tweaks in this article can be accomplished using the core Windows interface, but there are hundreds of other changes you can make by adjusting entries in the Windows Registry, which is an enormous database containing all Windows settings. (For information on the Windows Registry and some of its basic tweaks, see "System Settings Central" on page 48.)

We recommend using extreme caution when working in the Registry, because deleting the wrong entry or making the wrong adjustment can cause Windows to stop working. If you feel uncomfortable working in the Registry or want to perform tweaks beyond the basics, there are myriad tools available that let you adjust obscure (and safe) Registry settings with the click of a mouse. Just be very careful when working in the Registry, even if you use a third-party tweaking tool, or you may end up with a much bigger problem than just an unruly Windows interface. ▐▌

by Tracy Baker

THE GATEKEEPERS OF YOUR PC
CONTROL USER ACCOUNTS & PASSWORDS

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For many of us, user accounts and passwords are something we never consider. We start the PC, we log on, and that's it. But user accounts—and their passwords—can be your first line of defense against unwanted intrusion. Used carelessly, in some cases they can also lock you out of the system. In this article, we'll discuss best practices for establishing and modifying your accounts and passwords in Windows 98/XP/Vista. However, because Win98 works very differently from WinXP/Vista, we'll discuss it in the sidebar, "An Oldie But A Goodie."

### Set Up, Protect & Edit A New Account

Control Panels in WinXP and Vista display the user profiles you have created and let you create new ones or edit existing ones. However, you must be logged in to an account with administrative privileges for most operations. To get started, click Start and click Control Panel. In WinXP, double-click User Accounts. In Vista, under User Accounts And Family Safety, click Add Or Remove User Accounts (this opens the Manage Accounts control panel).

Next, click Create A New Account and provide the new account name (in WinXP, you must then click Next). Decide if your account will be a Computer Administrator (Administrator in Vista), which has full access and can make system-wide changes, or Limited (Standard in Vista), which restricts system changes and other advanced operations.

Once you create a new account, click it to see the range of settings

you can change. Administrators can change the account name, picture (icon), or account type; delete the account (and its stored information); and create, change, or remove a password. Limited/Standard accounts have fewer choices. All of these operations require a few clicks and are self-explanatory. However, note that if Administrators are setting up passwords for other accounts, it's best to do this right after account creation. Otherwise, the user will lose stored Web passwords and other data. In Vista, you can also set up parental controls, which we'll discuss later.

For security reasons, best practices for PCs with Internet access are to minimize the use of Administrator
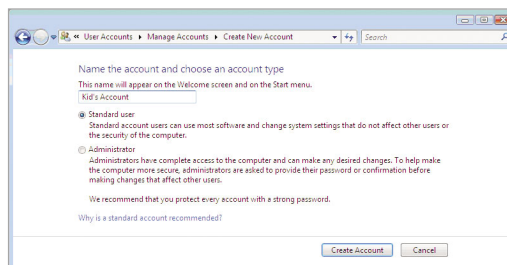
In Windows Vista, users provide a username and select access rights from the same display.

accounts and password-protect them (and all others, if possible). Create a second Limited/Standard account to use when completing daily tasks and use the Administrator account when you are making system-wide changes or installing programs. During password creation, select strong passwords (eight or more characters, letters, numbers, and symbols). You also can provide a password hint to help you remember your password.

Little Extras

There are other changes you can make to enhance security or customize your environment. These depend on the OS (operating system) you are running.

Use classic Windows login (WinXP only). WinXP offers two login screen options: the default Welcome screen most users see or the classic login screen. Classic login requires each user to remember and provide his username at login. To switch from the Welcome screen to the classic login screen, open User Accounts as described and select Change The Way Users Log On Or Off. Deselect the checkbox in front of Use The Welcome Screen. This will also disable Fast User Switching, which lets users switch from one account to another without closing programs.

Disable the Guest account (WinXP/Vista). The Guest account lets anyone without a username and password log on to your PC. To ensure it is disabled, go to User Accounts/Manage Accounts as described and look under Guest next to the Luggage icon. If the Guest account is enabled, click it and select Turn Off The Guest Account.

Create a password reset disk (WinXP/Vista). Both OSes let you make a password reset disk. The disk provides an easy way to get back into a system when users misplace or forget their passwords. In WinXP, from User Accounts, select the account you want to change and then click Prevent A Forgotten Password. In Vista, from User Accounts And Family Safety, select User Accounts and then click Create A Password Reset Disk.
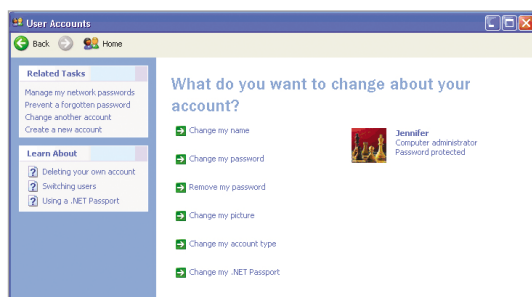
Administrators have a wide array of account editing options in Windows XP and Windows Vista (shown is WinXP).

Administrator accounts absolutely should create them, as forgotten password recovery is very difficult. Administrators can reset the passwords for Limited or Standard accounts by removing them, but the user may lose stored information normally protected by the system, such as encrypted files and file-sharing credentials. Follow the instructions in the Forgotten Password Wizard to create the password reset disk.

Assign Parental Controls (Vista only). On new or existing accounts in Vista, Administrators can assign parental controls. In Control Panel under User Accounts And Family Safety, select Set Up Parental Controls For Any User and then select a user for whom you want to set the controls. With Parental Controls on, you can set time (usage) limits, control Web access, restrict game playing based on ratings, and more.

Explore Further

Both WinXP and Vista allow an array of advanced operations, such as setting password lockouts for excessive logon attempts, hiding accounts so they don't appear on the login screen, and more. However, these are beyond the scope of this article. If you would like to explore further, visit Microsoft support (support.microsoft.com) and search under User Accounts, Passwords, and Local Security Policy for more resources. ▌▌

BY JENNIFER FARWELL

An Oldie But A Goodie

In Windows 98, user accounts and passwords are more about keeping everyone's files separate than securing the PC. Nevertheless, they're nice to use if you have multiple users on the PC.

To create and protect new user accounts in Win98, click Start, Settings, and Control Panel and then double-click the User icon. On the User List tab, click New User. If you have not enabled User Profiles, Win98 will initiate the Enable Multi-User Settings Wizard, which turns on the User Profiles feature. Otherwise, it will go straight to asking you to provide a username. At the password prompt, you can provide and confirm a password or leave it blank if you don't want one. You then select which elements you want to be customized for the user and whether they will be new or duplicates of existing ones.

With User Profiles enabled, Win98 will display a login screen showing all usernames. Note that anyone can use the PC anonymously by clicking Cancel or pressing ESC at login, but Win98 will not retain any customized settings. You can add or remove a password or change these settings at any time by selecting Set Password or Change Settings from the User List display. Whether you are adding or changing a password to an existing account, Win98 will prompt you for the old password. If you do not have one, leave that field blank.

You can disable user profiles, and Win98 will stop storing customized information. However, it will retain the user profiles for future use. Users can still log in, but changes they make will be global. To disable user profiles, click Start, Settings, Control Panel; double-click the Passwords control panel; and click the User Profiles tab. Select All Users Of This PC Use The Same Preferences And Desktop and click OK. To enable existing profiles again, repeat the process for creating new user accounts but provide an existing username. If you want to eliminate a user's profile, stored settings, and files, use the Delete option on the Users control panel.

One benefit for Win98 users is that it is easy to recover from lost or forgotten passwords. To do so, log in to another account or, if you cannot remember the password to any account, log in anonymously. Once Win98 opens, click the Start menu, select Find, and then select Files Or Folders. Type ***.pwl** in the Named field and press ENTER. Win98 will return a list of password files, each of which starts with the first five letters of its corresponding username. Click one or more password files to select them and then delete them. Restart the PC, and you shouldn't need a password. ▌

Error Messages

Don't understand the error that keeps popping up on your computer? What does it mean? How do you fix it? There's nothing more frustrating than an error message, but almost as exasperating is not knowing where to turn for information.

The next time you see an error message, search SmartComputing.com's Error Messages section to find answers. With this feature, you'll find answers to hardware and software problems and much, much more. Browse the error messages alphabetically or search by error message text to find hundreds of articles, each with easy-to-understand translations and helpful solutions. Many articles will also have a "See Also" section that lists helpful articles related to the topic. Be sure to also browse Basic Troubleshooting Articles to find information and solutions to popular computer issues.

1. Go to www.smartcomputing.com and click the Tech Support Center link.

2. Click the Error Messages link in the menu bar on the right. For best results, browse error messages alphabetically first.

3. To search articles by text, click the link, type your error message in the box, and click Search.

Subscribers, if you're still struggling to find solutions, post your question on the Q&A Board and let fellow *Smart Computing* subscribers help you solve all of your computer problems.

Search Error Messages

The "Search" function below will reference any Windows error message, regardless of the version (95, 98, XP, 2000, ME, etc.) in which it appears. That's because many error messages appear in several Windows versions.

Therefore, rather than list the same error message several times we may only list it once, under one Windows version, which is why we don't provide the ability to search only Windows 98, or Windows XP, etc, error messages.

Also, be aware that if we associate a particular error message & solution listing with, for example, Windows XP, we are certain that the suggested solution will work on XP. However, the same solution may, in many cases, also work with other versions of Windows.

Enter all, or at least the first 50 characters, of the BODY of the error message:

◉ Contains ○ Begins with

[Search]

Red X

It seems this pesky letter is always on our readers' minds. It tops the list of most-searched subjects at our Tech Support Center and makes frequent appearances on our Q&A board. Visit both to find answers about the nuisance today.
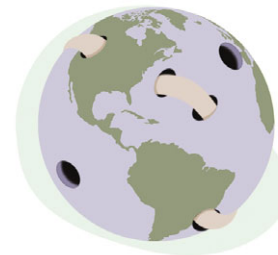
Virus Attack

This month 19 years ago, Great Worm (an Internet virus) attacked computers using the Sun Unix sendmail software. The early virus affected more than 6,000 computers, according to the *Smart Computing* Dictionary.

Get More Info

Whether you need tips on using Microsoft's latest operating system or choosing the best HDTV for you, one of *Smart Computing*'s sister publications likely has you covered. Browse recent issues by clicking on the links provided at the bottom of the SmartComputing.com home page.

From *Smart Computing*'s Daily Tip Archive

View File Extensions In Vista

File extensions are the three- or four-character codes, such as .DOC, .TXT, and .JPG, that follow a file name and indicate what type of file it is. To make extensions visible, open Control Panel, double-click Folder Options, and select the View tab. Remove the Hide Extensions For Known File Types checkbox and click Apply.

Microsoft Word 2007

## Learn The New Interface

We pointed out in our first column introducing Microsoft Word 2007 that the first thing a new user has to address is the program's radically new interface. Fortunately, things aren't as strange as they might seem when you start the program for the first time.

Since the beginning of Word For Windows over 15 years ago, there has been a menu bar with these selections: File, Edit, View, Insert, Format, Tools, Table, Window, and Help. In the place of the menu bar are now the words Home, Insert, Page Layout, References, Mailings, Review, View, and Add-Ins. These are not menu items at all, however. Instead, they are names of *tabs*.

The missing File menu may be the most troublesome at first and leave you wondering how to even get started. Taking over its duties, and then some, is the Office button in the upper left of the window. Click it to find many of the old File menu functions (New, Open, Close, Save As, Print, and Send), as well as some new ones for Word 2007.
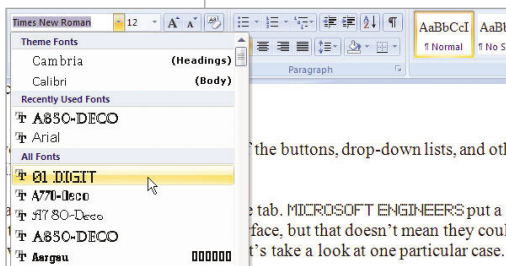
The Bars Are Closed

There are no toolbars in Word 2007 except for the Quick Access Toolbar at the very top of the window. In previous versions of Word, you clicked View and Toolbars on the menu bar and selected which toolbars you wanted to have visible. Instead of toolbars, Word 2007 has the *Ribbon*. Click the Home tab and look over the Ribbon.

Notice first of all that the Ribbon is divided into *groups* of functions. When you look at the Ribbon by groups, it becomes much less daunting.

The Font area will certainly look familiar. Here you determine the font, size, color, and other formatting of text. Now look at the paragraph section. Here, too, you should recognize most of the functions. It's just that instead of being accessed from a toolbar, the functions like Bullets and Line Spacing are available in a group on the Ribbon.

Microsoft has also brought functions to the Ribbon that previously required a visit to the menu bar to access. In earlier versions of Word, for example, you had to click Format, Bullets And Numbering, and then the Numbering tab to access the different types of numbers available. With Word 2007, you can access all the customization features you need directly from the Ribbon by clicking the arrow next to the button.

Microsoft has done this in several places on the Ribbon, and as you get used to it, this new design can save you time. Some functions, such as widow and orphan control within a paragraph, are still accessed from a dialog box, however. Note that the Font, Paragraph, and Styles groups have small boxes next to their names. Click the Paragraph box and you are taken to the "old-school" dialog box with familiar options, including widow and orphan control and others.

The other big group on the Home tab is Styles. Styles are essentially bundles of formatting, including options from simple typeface and color to borders, shading, and paragraph spacing and can be applied with a single click. Styles are accessed via a task pane in previous versions of Word, but now they are front and center, right there on the Home tab taking up about one-third of the Ribbon space.

"One of our goals for the Office 2007 user interface was to make it easier to create beautiful output," said Jenson Harris, group program manager of the Microsoft Office User Experience Team, on his blog (blogs.msdn.com/jensenh/about.aspx).

Take A Preview

You can preview style and formatting changes in general in Word 2007 before actually applying them. Create a Word 2007 document and select some text within it. Click the Font drop-down box and hover the cursor over a new font. The selected text will change to reflect the new font before you actually apply it to the text. Try the same thing with some styles to preview the changes.

Had enough of the Ribbon for now? Right-click anywhere on the Ribbon and select Minimize The Ribbon. Right-click near a tab name and uncheck Minimize The Ribbon to bring it back.

Next month, we will look at some ways to customize the ribbon and use the Quick Access Toolbar. ▐▌

You can preview what a font change will look like for the selected text "Microsoft engineers" before applying the change.

BY TOM HANCOCK

Microsoft Money Plus Premium & Intuit Quicken Premier 2008
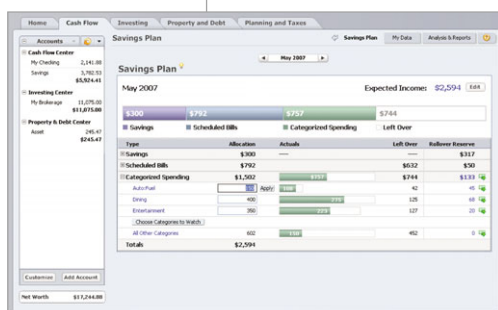
Personal Finance Update

Personal Finance

Beginner

2008 for
Windows
XP/Vista

2008 for
Windows
2000/XP/Vista

I t's that time again: The latest editions of Quicken and Money should be available to consumers by press time. Sure, it can seem like a never-ending task to keep your software up-to-date, but it's smart to make sure you have access to the new features available in the latest editions, especially when it comes to your finances. This edition of Quick Studies will serve as the transition between versions 2006 and 2008 of Quicken and Money. Here's what you can expect from both.

Microsoft Money Plus Premium

Upgrading from a previous version of Money to Microsoft Money Plus (the official name of the 2008 version) is fast and easy. The software will automatically convert all your financial information from the old Money file to the new Money file in a matter of minutes. Quicken users who would like to switch to Money Plus will also find the process easy: Money Plus includes a file converter designed to migrate your financial data from Quicken to all Money Plus editions except Essentials.

The new My Savings Plan feature in the Quicken 2008 Deluxe and Premier editions lets users compare their intended budget with their actual spending for a given month.

The four available editions of Money Plus include Essentials ($19.99), Home & Business ($89.99; $59.99 with rebate), Deluxe ($49.99; $29.99 with rebate), and Premium ($79.99; $49.99 with rebate). We'll use the Premium edition in Quick Studies articles.

Money Plus Premium includes all the features available in the 2006 and 2007 versions, plus some new bells and whistles. Here is a short list of some of the new things you'll find in Money Plus:

Insights are a way to keep you informed even when Money Plus isn't open. You can create custom alerts that will display when you log on to Windows, keeping you apprised of the situation with your bills, cash flow, and spending. So if you have an upcoming or overdue bill, you'll see the insights alert icon in the Windows notification area.

When using an Advanced Account Register, transactions can support an attached link to important files, such as check images or scanned receipts.

Get timely information and financial advice in the form of stock ratings from Morningstar (an independent provider of leading investment research) and the Top 10 Daily Update from MSN Money StockScouter.

Intuit Quicken Personal Finance 2008

Quicken makes it just as fast and easy for Quicken and Money users alike to update their financial software. Quicken 2007 introduced a new interface that presented a cleaner home page where users could easily see the money coming in, going out, and what was left. That approach is carried through to the 2008 version, with an added focus on addressing the specific financial concerns of different groups of consumers.

The Starter Edition ($29.99), which is new to the lineup, is designed to help new users track their spending. Deluxe ($59.99) focuses on helping users save money, and Premier ($89.99) is designed with investment management in mind. Home & Business ($99.99) serves as an all-in-one financial management tool. Here are a few features that are new in Deluxe and Premier for 2008:

The My Savings Plan feature is designed to track how you actually spend money, not just the way you budget your money. The chart shows a summary of actual spending for a month and compares that to what you intended to spend for that month.

A Billminder gadget allows Vista users to see reminders for scheduled bills and transactions from the Desktop. Billminder can be pinned to the gadget sidebar in Vista.

A new Navigation bar uses tabs along the top of Quicken's main pages to make it easier to move around in the program.

This is just a snapshot of some of the things these new versions are capable of. In the coming Quick Studies articles, we'll take a more in-depth look at what your new software can do for you. ▮

BY JENNIE SCHLUETER
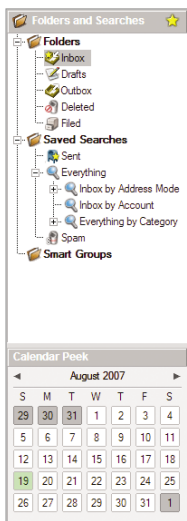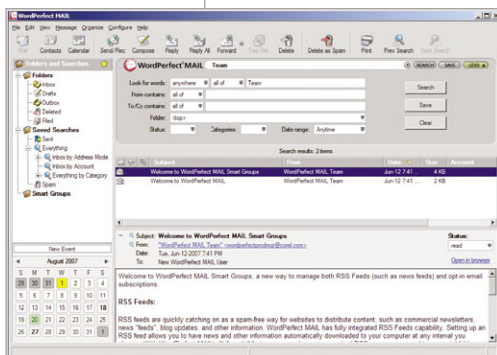
WordPerfect Office X3

Introducing WordPerfect MAIL

WordPerfect Office X3 comes with a brand new email client, WordPerfect MAIL. This addition to the suite's family is designed to do a lot more than just send and receive electronic messages. Sure, it comes with the usual, such as a calendar and contacts list. But it also delivers a trainable spam filter, an RSS (Really Simple Syndication) reader, and a built-in indexing and search tool that will scan all of your messages, as well as your calendar and integrated contacts.

Before we dive in and discuss all these features, we need to become familiar with the workspace. From the Start menu, find WordPerfect Office X3 and then choose WordPerfect MAIL.

Workspace Overview

There are three windows in MAIL: Mail, Contacts, and Calendar. The first time you open the application, the Mail window appears. You'll find it partially obscured by the Import Wizard dialog box—click Cancel on this dialog box for now; we'll talk about importing contacts in a future issue.

The Mail window resembles other email clients. There's a toolbar along the top with clickable icons for common tasks. The three icons on the left represent the three windows. Icons will be shadowed when those commands are unavailable. For example, if you don't have an email message selected, you won't be able to click on Reply, Reply All, or Forward, among others.

Beneath the toolbar, the Mail window is broken into two columns. On the left side is a column with two components: the Navigation pane and the Calendar Peek. On the right, you'll see the Search area on top; beneath that is the Message list, and the Preview pane is on the bottom.

Browse your mail with the Navigation pane or view scheduled events in Calendar Peek.

The WordPerfect MAIL workspace includes many familiar icons and features.

Navigation & Calendar

The Navigation pane's default appearance displays the Folders And Searches area; click the yellow star and the display switches to the Favorites area. Click the brown folder to return to the Folders And Searches area.

In Folders And Searches, you'll see the familiar hierarchical structure of folders and files. The WordPerfect MAIL folders are pretty typical: Inbox, Drafts, Outbox, Deleted, and Filed folders. What comes next is not typical, but represents two of this application's coolest features: Saved Searches and Smart Groups. Through Saved Searches, you can view messages in different modes: Inbox By Address, Inbox By Account, and Everything By Category. Smart Groups is how you manage your subscriptions to RSS distribution lists.

The Calendar Peek component appears beneath the Navigation pane. Dates with events scheduled appear bolded. Click on a date to see scheduled events listed immediately above the calendar. Arrows on either side of the month's name allow you to display a previous or subsequent month.

You can easily remove the Navigation pane and Calendar Peek from the active window. Go to the View menu and remove the check next to the feature you wish to hide. You'll notice that hiding the Navigation pane means hiding Calendar Peek, too.

Searches, Messages & Previews

To the right of the Navigation pane and the Calendar Peek are the Search area, Message List, and Preview Pane. We'll talk more about searching in the months ahead. For now, know that WordPerfect MAIL applies to your emails the type of algorithms that drive Internet search engines. This makes for pretty powerful search capabilities.

Beneath the Search area is the Message List. Choose a folder in the Navigation pane and its contents appear here, by date in descending order. This is the default setting; later you'll learn to hide, display, or sort columns in the Message List. To read a message, double-click it or select it to view it in the Preview pane. The Preview pane reveals the entire email message, including the header, a list of attachments, and the message status. If you find this distracting, remove it. Just go to the View menu, choose Preview Pane, and then choose None.

With a little experience under your belt, you'll be ready to explore the features in depth and really learn the ins and outs of WordPerfect MAIL. **II**

BY ANNE STEYER PHELPS

StumbleUpon

Beginner

Online

Stumble Through The Web

Social networking and bookmarking sites crop up all the time, but few gain the critical mass necessary to make them terribly interesting. StumbleUpon, a new sort of shared bookmarking site, has definitely grown large enough to attract attention.

StumbleUpon users—numbering more than 3 million at press time—install a toolbar in their browser that lets them quickly click through sites recommended by other "Stumblers." Users rate sites using simple buttons. Those ratings are used by the central server to rank sites and better determine what users see when they click the Stumble button.

It doesn't sound like a lot, but the recent sale of the original StumbleUpon company to eBay for nearly $75 million shows that the idea has legs. Web site authors and advertisers know that positive StumbleUpon feedback drives considerable traffic to new sites, and users find StumbleUpon a great way to discover sites they might otherwise have missed. Plus, it's easy to use, and it's free.

Stumble Time

Try StumbleUpon by heading to the Web site (www.stumbleupon.com) and clicking the link to download the browser toolbar (StumbleUpon works with Internet Explorer and Firefox). After installing the toolbar, you'll see a StumbleUpon page with a list of general topics. Click a few you like and then click Save My Settings. You can always add or remove topics later.

The next page invites you to start stumblin'. Click the Stumble button at the left end of the new toolbar to see a user-recommended site pertaining to one of the topics you selected. It might be an interesting page, it might not. You can click the Thumbs-Up or Thumbs-Down buttons on the toolbar to provide feedback about the page. Over time, your ratings help StumbleUpon determine which other pages you might like to read.

You can also add sites to the growing StumbleUpon database. Whenever you come across an interesting site, you can click the Thumbs-Up button to recommend a site to others. That recommendation not only refines your own StumbleUpon profile, but it also may cause the site to be served up to others who have indicated interests similar to yours. If you're the first to recommend a particular site, you can be credited as the discoverer of that page when other Stumblers find it later. You can also read or write reviews of pages when thumbs-up or thumbs-down doesn't seem like enough.

Join The Crowd

There's more to StumbleUpon than viewing random Web sites. There's a huge social component to StumbleUpon, with easy ways to find people who share the same broad interests in Web pages as you. For instance, if you find a site you like, you can look up others who liked the same site. In fact, StumbleUpon will show you a list of folks who not only like that site but also live in your general geographical area.

The point of this for most people is probably not to meet strangers who happen to look at similar Web pages, but to find Stumblers who regularly mark pages that you would find interesting, as well. For example, whenever you visit a site that happens to be in the StumbleUpon database, the user who first suggested it will be listed on the toolbar toward the right side. Click that username, and you'll see that person's StumbleUpon profile page with links to other sites they liked.

StumbleUpon can be a good way to share recommendations with people you know. Click the Friends button on the toolbar, and you'll see a page where you can easily import contact lists from Gmail, Yahoo! Mail, Facebook, or other accounts. StumbleUpon will look through the email addresses (it promises not to spam everyone) and see who already has a StumbleUpon account.

Stumbling led us to a lot of mediocre sites mixed with the occasional interesting page. Randomly sifting through sites might not always be the most efficient use of your bandwidth. If you ever get the feeling you've run out of Internet, however, StumbleUpon is worth a look. ▌▌

StumbleUpon serves up Web sites based on your interests and recommendations by other StumbleUpon users. It's a good way to discover pages you'd probably never run across yourself.

BY ALAN PHELPS

Quick Studies
Problem-Solver

Image Processing

11 for
Win2000/XP/Vista

Intermediate

Corel Paint Shop Pro Photo XI

Troubleshooting Installation

There are good reasons to upgrade to Paint Shop Pro Photo XI (we covered a few of them in last month's overview), but there's a practical reason why not to use the latest version: installation woes. If you can't get the software installed, all the new features in the world won't matter. That's why this month's article is devoted to troubleshooting installation problems.

Working With Windows Vista
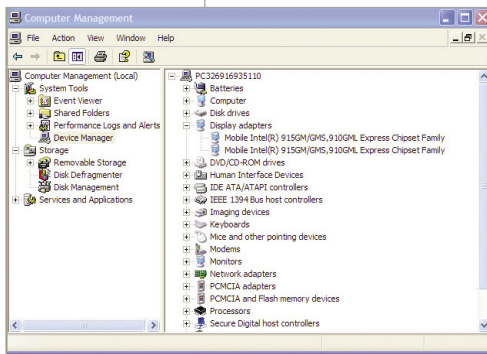
Locate your graphics card (via Computer Management) to see if it has a conflict with Paint Shop Pro Photo XI.

Upgrading software isn't always easy, and when it's combined with upgrading your OS (operating system), well, it's no surprise if you run into a glitch or two. If you're trying to install version XI onto a machine running Vista, you will need to consider a couple of scenarios.

One, if you're running version XI and upgrading the OS to Vista, first you must install the Corel Paint Shop Pro Photo XI Vista update, found in the Patches And Updates area of the Support section of the Corel Web site (www.corel.com).

Two, if you're already running Vista before you attempt to install version XI, you may run into an error message advising you to log in to an account with administrator rights—even if you know you're logged in to an administrator account. If that's the situation, right-click the installation file and select Run As Administrator.

If this still doesn't work, the problem likely lies in Vista's UAC (User Account Control) feature. This feature is intended to keep malicious programs from installing on a PC, but it occasionally traps wanted applications, as well. You can turn off UAC, but we strongly recommend you do this only if you've exhausted other options and as long as you turn it back on after you've successfully installed PSP XI. To turn UAC on or off, open Control Panel, select User Accounts And Family Safety (or User Accounts if you are connected to a network domain), and then click the User Accounts link. Next, click the Turn User Account Control On Or Off link to disable or enable the security feature.

Zap away unwanted Paint Shop Pro Photo XI remnants by uninstalling the program with the Zapps.exe file.

Conflicts With Graphics Cards

Your graphics card is responsible for what you see on your computer display. Any graphics program must be compatible with your graphics card. In some cases, Paint Shop Pro Photo XI conflicts with Nvidia GeForce graphics cards, which can cause the application to freeze during installation.

If you have an Nvidia GeForce card, odds are good that the reason the Corel software isn't installing properly is that you have an outdated driver. To update your driver, visit the Nvidia Software Download Page (www.nvidia.com/content/drivers) and make sure your model is listed. Before you install the latest driver, however, Nvidia recommends you uninstall all Nvidia drivers. From the Control Panel, select Add Or Remove Programs, locate the program called Nvidia Windows Display Drivers or Nvidia Display Drivers and click Remove. Once you've removed the driver from your PC, return to the Nvidia Software Download Page and follow the instructions for downloading and installing the proper driver.

Begin Again

Sometimes, if a program isn't properly installed, the best tactic is to uninstall it completely and then reinstall it. You can do this via Add Or Remove Programs, but Corel recommends you uninstall PSP XI in another way.

In your Web browser's address location, type **ftp://ftp.corel.com**. Click the Pub folder, click the PaintShopPro folder, and click the folder X. Select the file Zapps.exe and save it to your Desktop. Launch the Zapps executable file and select Corel Paint Shop Pro Photo XI from the Product drop-down menu. Select all four checkboxes under Actions and click the Begin button. When the removal is complete, click Close. Manually remove any files from the location where you originally installed PSP XI (likely under C:\Program Files\Corel). You will now have a "clean" location for reinstalling Paint Shop Pro Photo XI. ▮▮
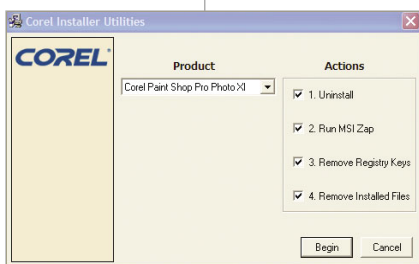
BY HEIDI V. ANDERSON

PowerPoint 2007

Showtime Secrets

Most PowerPoint users take the stage with the mindset of a pro golfer just trying to shoot par: Don't take any dumb risks. Be conservative. Walk away safely. In PowerPoint terms, that translates into avoiding anything too technically fancy while flipping through your slides.

That's an understandable approach since it often feels like courting disaster if you stand in front of a crowd and try complex functions when you're getting along just fine without them.

But you can make presentations more interactive and interesting with a few basic tricks. A little practice with these tools and you'll be comfortable enough to step in front of any audience with the attitude of a golfer playing for eagle on every hole.
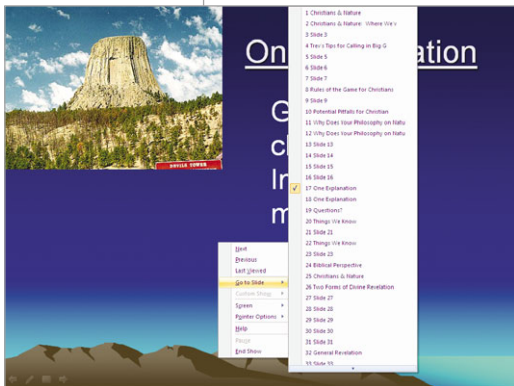
When giving a slide show, you can instantly jump to another slide by right-clicking and choosing the slide's number.

Make Your Mark

Interacting with your slides makes information feel more relevant. One trick is to walk up and point to on-screen items. If you can't approach the screen, try drawing right on the slides to circle or underline items. To access the on-screen pen, right-click while a slide show is running and choose Pointer Options and the type of pen you want to use. Change the line color with the Ink Color option on the menu. Remove the marks by right-clicking and choosing Pointer Options and Erase All Ink on Slide.

Put All Eyes On You

When it's time to drive a point home, you want the audience's eyes on you, not the screen. Getting their attention is iffy if they see a slide. So the secret is blanking the screen. To turn the screen black, press *B*; to turn it white, press *W*. Press any key or the mouse button to bring the slide back into view.

Jump Among Slides

This tool is handy during Q&A periods. When someone asks about a point you made, you may want to go back to the relevant slide to review the information. You can go right to the correct slide by right-clicking and choosing Go To Slide. Scroll through the list to find the slide you need and click it. When you're ready to return to the slide you came from, right-click and choose Last Viewed.

View Multiple Programs

This one seems simple, but we meet a lot of PowerPoint users who don't know about it. You can jump between your presentation and other running programs by pressing ALT-TAB. This works well when you're showing something like live Web pages between slides. Just hold down the ALT key and keep pressing TAB until the icon for the right program is highlighted. If you have multiple documents (or Web pages) open in a program, note the text displayed in the ALT-TAB box so you can pick the right window.

Use Secret Slides

Hidden slides are a good way to customize slide shows for various groups. Let's say you're giving a standard safety lecture to various company departments and decide that the accounting team could do without the slides about incinerator safety. You can hide those slides when giving the presentation. Go to the right slide and click Hide Slide on the ribbon's Slide Show tab. To quickly hide something like the last 20 slides of the presentation, click Set Up Slide Show. In the Show Slides section, indicate the slides you want to include.

To reveal a hidden slide, right-click, choose Go To Slide, and pick the appropriate slide. (Hidden slides have parentheses around their numbers.)

Work With Two Monitors

Try using two monitors to let you see both the slide show and something called Presenter View. On the monitor only you can see, PowerPoint shows you what's coming up in the next bullet item and slide, and it lets you read your speaker notes as you go. If your computer is already set up for multiple monitors, you can start using Presenter View by clicking Set Up Slide Show on the Slide Show tab and clicking Show Presenter View. ❚❚

BY TREVOR MEERS

Quick Studies
How-To

Spreadsheet

Advanced

2007 for
Windows
XP/Vista

Excel 2007
Creating Tables

Excel 2007's list of new features includes plenty of improvements that won't exactly wow most of the software-buying world. For example, its support for 6,300% more columns than the previous version comes to mind. The new table feature is among the things that probably aren't top-of-mind for new 2007 users either, but unlike those 16,300 available columns, this feature is actually one that almost everyone should take for a test run. It's a fast way to put a block of data into a more readable form that's also easy to manipulate.

Insert A Table

If your worksheet already includes a range of data set up in rows and columns, creating your first table is almost instantaneous. Just drag your mouse across the range to highlight all the information (drag across the row and column labels, too, if you've already entered them), then click the Insert tab's Table button. The dialog box that appears offers you the chance to change your data selection, but since you've already highlighted the range by dragging, this part should be taken care of.

You'll notice a checkbox labeled My Table Has Headers. Excel uses this feature to automatically handle part of your chart's setup, and if you highlighted text cells above columns when selecting your range, Excel should check this box itself. If the box is empty, but your highlighted range includes headers, click the box to tell Excel what's happening. If you create a chart without headers, you can always double-click the "Column 1," "Column 2," etc. headers Excel inserts and type in the text you want to appear there.

Headers are nice to have in long tables, because if you click inside a table and start scrolling down, the headers remain visible. If you don't want to see the headers, hide them by clicking the Table Tools tab and clicking to remove the check mark from Header Row. (Whenever you click inside a table, the Table Tools tab appears above the regular ribbon.) Keep in mind that when you shut off the headers, you'll lose any filters (which we'll describe later) you've applied.

Note that it's usually smart to highlight row labels along with column headers. Row labels often serve as names of things such as salespeople in a sales results sheet or product names in an inventory sheet. Highlighting these labels means they stay with the numbers in the row when you sort a column. Plus, highlighting the row labels makes them a sortable column themselves.

Expanding Tables

The table's size is flexible. To add another empty row at the bottom, click on the last cell in the last row (the bottom-right corner) and press TAB.

To add new data in rows or columns adjacent to the table, type data into an adjacent cell and press ENTER. Excel will add a row or column. You also can drag the handle at the bottom-right corner of the table to bring adjacent cells into the table.

To insert a row or column in the middle of the chart, click the row below where you want the new row or click the column to the right of where you want the new column. Now go to the Home tab's Cells area and click Insert. Choose the Insert Table Rows or Insert Table Columns option. For an even faster addition, click in the row or cell, right-click, and choose Insert and the relevant option. Delete empty rows and columns by right-clicking a cell in them and choosing Delete and the relevant option.

Sorting Data

One feature built into Excel's new tables is data sorting. Every column comes with a drop-down arrow you can use to sort a numerical column into ascending or descending order and a text column into alphabetical order.

The drop-down arrows also include filters that let you hide any data that doesn't meet certain criteria. For numbers, you can pull out only figures above or below the column's average; those that equal a certain figure; and more. You even can set up custom filters of your choosing. For text, the filters let you sort through entries with criteria such as cells that contain certain characters or begin or end with certain characters. ▌▌
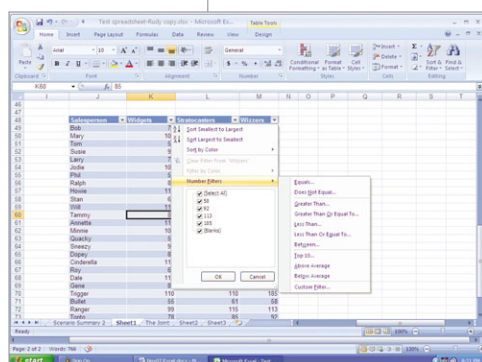
Excel's new Table feature automatically places sorting tools at the top of each column.

BY TREVOR MEERS

Quick Tips

Secrets For Succeeding In Common Tasks

BY STEPHEN J. BIGELOW

Data Security

Question: I'm a small-business owner, and I hear a lot about stolen data. Should I allow my employees to bring flash drives, iPods, and other digital storage devices to work?

Answer: That's an extremely difficult question to answer because there are no absolute solutions. For example, a disgruntled employee can attach a customer database to an outgoing email just as easily as he can place it on a thumb drive, so it's difficult to stop a theft if an employee intends to steal the data.

However, a small-business owner can take some simple steps to keep data secure. This can include keeping sensitive data on a particular computer (off the network, if possible); password-protecting PCs that contain sensitive data; encrypting sensitive files or hard drives with commercial products, such as PGP Whole Disk Encryption ($149; www.pgp .com); and educating your employees about the importance of data security so that they're not sharing passwords, etc. If you do choose to adopt a data security policy, be sure that it's in writing and that all of your employees read and understand it.

Audio Files

Question: I use a digital voice recorder for work, but the resulting voice files that I save on my PC are just huge. Is there any way to create smaller voice files? Are there any other benefits besides a space savings?

Answer: Chances are that you're downloading the voice files from the digital recorder to the PC in a stereo WAV format. The WAV format is **lossless**, a type of file compression in which no data is lost, so you're sure to capture every nuance of the recording. Furthermore, saving the recording in stereo basically doubles the size of the file. It's not uncommon for a 16-bit 44kHz (kilohertz) stereo WAV file to run over

Use a lower-quality or lossy format to save your digital voice files and save in mono rather than stereo.

100MB per minute. Making the file smaller would use less drive space, be easier to transport on mobile media such as thumb (flash) drives, and upload/download faster to the Internet.

The next time that you save a voice recording, see if you can change the format and bit rate through the digital recording applet. When you save the next recording, look for a smaller format such as a mono 11kHz format or even a **lossy** (a type of data compression in which some of the quality may be lost) format such as MP3. You'll find the resulting voice file to be far smaller, but the sound quality should still be sufficient.

Home Networking

Question: How can I get network capability in my son's room without having to run cables through the walls? I'd rather not use wireless networking if I can avoid it.

Answer: In this case, the easiest way to bring a network into another room in your home is to use a power line Ethernet adapter set, such as the Netgear XE102G (about $90; www.netgear.com). The idea is that you plug one adapter into a power outlet in your son's room and run an Ethernet cable from your son's computer to that adapter. Next, plug another adapter into a power outlet near your router and run an Ethernet cable from that second adapter to a free port on your router. This makes the connection using your home's existing power lines. Keep in mind, though, that you'll need one additional adapter for each PC that you may want to connect at a later time.

IP Addresses

Question: How do I determine my computer's IP (Internet Protocol) address? Is it a good idea to change the IP address periodically?

Answer: Virtually all networked PCs receive their IP address automatically using a technology called DHCP (Dynamic Host Configuration Protocol). Homes and small offices typically enable the DHCP feature found in their broadband router.

Because IP assignments are typically automatic and the router keeps track of them for you, it's
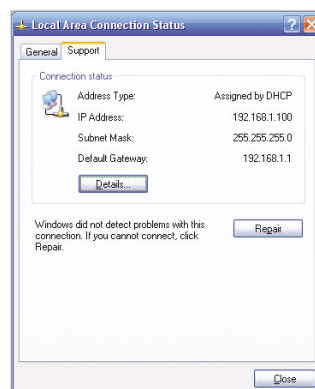
Use the My Network Places dialog box to track down your computer's IP address.

not usually necessary to be concerned about your IP address. But if you ever need the address, it's easy to find. Click Start, My Network Places, and View Network Connections. Right-click the Local Area Connection icon, select Status, and then click the Support tab. Look at the IP Address entry to see the IP address assigned by the router.

Intrusion Prevention

Question: How can I secure my computer against Internet attacks? How do I know that I'm protected against known attacks?

Answer: You can rely on reputable security software, such as Norton Internet Security ($69.99; www.symantec.com), as well as others. NIS includes

When using intrusion prevention software, make sure that all known intrusion signatures are selected so that the security software guards against all known threats.
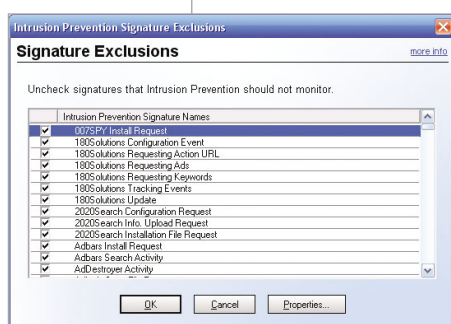
Intrusion Prevention features that identify the signatures of common intrusion software—similar to the way that virus code signatures are identified and blocked. When the signature of a known intrusion program is detected, NIS cuts off communication and alerts you.

Intrusion signatures are downloaded to you by subscription, so be sure that you have an active, up-to-date subscription with your security software provider. To verify that NIS is checking for all known attacks, open the NIS control panel. Highlight Intrusion Prevention, click Configure, and then click the Advanced button on the Intrusion Prevention dialog box. Make sure that every entry is selected on the list of exclusions.

Uninterruptible Power Supplies

Question: What's the difference between a UPS (uninterruptible power supply) and a surge protector? Do I need one or both?

Answer: A UPS is a battery backup that provides a few minutes of power in the event of a brownout or blackout, allowing you to save your work and shut

down the system. A surge/spike protector blocks many common power anomalies that can damage a PC, but it doesn't provide backup power. Ideally, you should include both forms of protection for your PC, but it's usually not necessary to buy the two separately—a UPS will almost always include surge/spike protection.

Pop-up Blocking

Question: I hate pop-ups in my Web browser. Do I need special software to stop pop-ups?

Answer: Some security software does include a pop-up blocking feature, and you can certainly buy software that will block pop-ups. However, browsers such as Internet Explorer 6 include a

pop-up blocking feature. With a browser window open, click Tools, Internet Options, and then click the Privacy tab. Locate the Pop-up Blocker feature and select the Block Pop-ups checkbox (labeled Turn On Pop-up Blocker in IE7). Click Apply and OK to save any changes. Close the browser and re-open it; the pop-ups should now be blocked.

Take Your Technology To Go

Protective Cases For Mobile Computing

As notebook computers become more affordable and feature-rich, many people have added a laptop to their computing arsenal or even traded in their desktop computers for a more portable PC. Like any investment, however, it's important to remember that laptops aren't cheap and therefore need to be protected, preferably with a high-quality, durable case. After all, where's the sense in protecting your expensive laptop with a bargain-basement case? To get you started, we've assembled a few cases we think are worth a look, from the lighter-use Skooba Skin to the heavy-duty Pelican 1495.

Skooba Design Skooba Skin
$27.95 to $39.95

www.skoobadesign.com

The Skooba Skin from Skooba Design (formerly RoadWired) goes from notebook sleeve to handled tote with the flip of a Velcro-lined flap, making it ideal for quick trips to the library or coffee shop where all you'll need is your laptop. The sleeve can also slip easily inside another bag or your suitcase for traveling. Its tough canvas exterior is available in a plethora of colors, including a Design It Yourself blank-canvas version, which lets you—or perhaps your grandkids—get creative with the sleeve's appearance. The inside is lined in a contrasting color and sports enough padding to protect your laptop from light bumps and knocks. As an added bonus, the Skooba Skin comes in a variety of sizes, so you're sure to find one that fits your laptop—the Skooba Skin 1617 we tested was roomy enough for our 17-inch widescreen notebook. These skins might not be the toughest in the bunch, but if you only need a sleeve for light use, Skooba Skins are a great choice.

Protect Your Smartphone, Too

To some people, a smartphone is as indispensable as a laptop—Treos, BlackBerrys, and the like let us make calls, take pictures, and access the Internet and our email just as a laptop does, only with an even smaller form factor. So, it should go without saying that these tiny wonders are just as worthy of protection as their big brothers. Here we've rounded up a couple of cases for Treo smartphones, although you can easily find similar cases for other smartphones from the same manufacturers.

The Silicone Case and the Aluminum Case are two offerings from Proporta (www.proporta.com), both of which are designed for Treo 680/750 models. The Silicone Case ($19.95) is a simple, snug-fitting skin designed to protect your Treo from scratches and nicks while still giving access to the Treo's controls and ports. The Aluminum Case ($34.95) is a similar

OtterBox 7000 Series Laptop Cases
$129.95 to $169.95

www.otterbox.com

Sleek and strong, the OtterBox 7000 Series Laptop Cases are built to provide some serious protection. There are three sizes available (Small, Medium, and Large), and each comes with sets of bumpers that you can install within the case (don't worry, instructions are included) to ensure a snug fit for your laptop so it won't slide around. These rugged, waterproof cases also include a shoulder strap for comfortable carrying—a plus because this case adds some extra weight—and two small keys that lock and unlock the case for added security. However, we noticed that there isn't very much extra space in the cases for additional accessories such as a mouse, power adapter, or extra battery, so if you prefer to have these with you on-the-go, be sure to allow for wiggle room when you decide which size to go with.

Pelican 1495 Case
$199.99

www.pelican.com

Pelican's 1495 Case can protect your laptop from pretty much whatever you throw at it. Its molded, high-impact copolymer resin body is watertight, crush-proof, and dust-proof, so it can handle the elements, and its three-dial numeric lock will protect you from crooks looking to make off with your notebook. The 1495 comes bundled with a notebook sleeve for additional cushioning, as well as a shoulder strap for added comfort. What's more, the interior features built-in compartments for files, pens, and even your cell phone. All of these features make for a heavy case, however: The 1495 weighs in at more than 7 pounds, which can add up once you include your laptop and any accessories you want to take with you.

offering made instead of tough, aircraft-grade aluminum for added protection. It, too, features cutaways to allow for access to ports and controls, though you'll have to open the case to access the keyboard.

On the more heavy-duty side is OtterBox's 1920-20 PDA Case ($99.95; www.otterbox.com), which completely encloses the Treo in dust-, drop-, and crush-proof protection. Made for Treo 650/700 models, this case provides protected access to all keypad buttons, the touchscreen, and device controls; however, it does add a lot of bulk, and we found it a little daunting to maneuver. ▌

OtterBox's
1920-20 PDA Case
$99.95
www.otterbox.com

What To Do When . . .

Your Old Program Won't Run On Your New PC Or OS

Tech blogs are full of complaints from users who are finding that their old programs, which ran on Microsoft Windows XP or older, won't run on the new Windows Vista. While it's easy to assume that Vista is more problematic than previous versions of Windows in this regard, the truth is that users had similar complaints about WinXP when it was released in 2001.

Operating system incompatibility is the most common reason why older programs won't run, or won't run well, on a new system. We wish that there was a one-size-fits-all solution. Wouldn't it be nice, for instance, if the updates Microsoft provides for its operating systems resolved all your incompatibility issues? Of course, keeping Windows current is important, and occasionally Microsoft updates will resolve incompatibility issues.

It's more likely, though, that you'll need to try other options, such as the ones offered here, to resolve conflicts between old programs and new PCs and/or operating systems.

Upgrade Your System

If you kept your PC and updated just your operating system, ensuing problems likely can be traced to the new version of Windows.

However, don't overlook crucial system issues, such as making sure you have enough hard drive space and memory to efficiently run both a new operating system *and* all your programs, old and new. Memory-gobbling programs will run sluggishly if they have to fight Windows for limited system resources. Therefore, upgrade your system accordingly.

Check Other Programs

It's possible that the source of the problem is another program. If you bought a new PC and operating system, the system may come with preinstalled programs that give your older programs fits.

Visit the Web site of the manufacturer of the older program that isn't working. It should list all known incompatibility issues with both Windows and other programs and provide step-by-step solutions or workarounds. Alternatively, go to the Web site of the company that makes the programs already installed on your new system to see if incompatibility issues are listed there.

Uninstall, Then Reinstall

If you kept your PC but installed Windows Vista, one solution is to uninstall the old program that won't work and then reinstall it on the same machine. (The same may apply to hardware peripherals, such as printers: Disconnect and then reconnect to the system after installing Vista.)

Open the User Accounts tool in the Control Panel to assign administrative rights to the user installing new software.
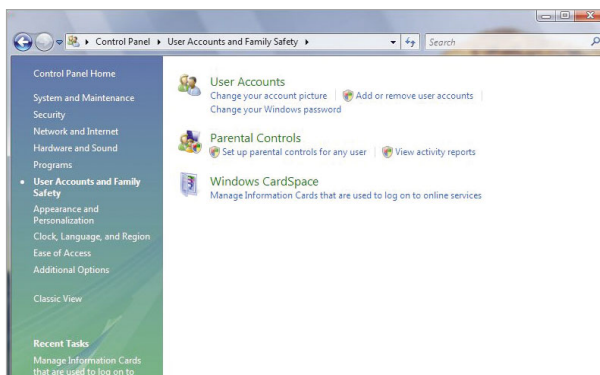
When you reinstall the legacy program, Vista's PCA (Program Compatibility Assistant) will alert you to potential problems. This handy built-in tool will automatically check the software for updated drivers and offer assistance in overcoming compatibility issues. The PCA may also block the program from running if it detects that compatibility problems could be serious, or it may automatically run the program in Compatibility Mode. We'll tell you how to adjust Compatibility Mode manually later.

Remember, if there are multiple user accounts on the PC in question, you'll need to reinstall the program while logged on as the computer administrator. The User Accounts tool lets you select which user has administrative rights. To find this tool, click Start, Control Panel, and Add Or Remove User Accounts in the User Accounts And Family Safety section. If a pop-up box appears, click Continue. Next, click the account you want to change and then click Change The Account Type and select Administrator.

The ability to run certain programs—or use specific features within some programs—requires administrative rights in Windows Vista. This is the case, for instance, with the newest version of Quicken, according to the support section of the manufacturer's Web site (www.intuit.com). Therefore, launching a program while logged on as the administrator is the next step.

The quickest way to run a program as an administrator, if you are not logged on to the system as such, is to right-click the program's icon on your Desktop or executable file (it will have a .EXE extension) and select Run As Administrator.

If you receive a message about unauthorized access, click Allow. And
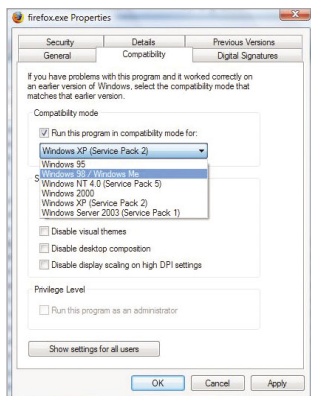
Use the Compatibility Mode in Vista to run an older program in an operating environment that mimics the operating system it was made for.

if you're prompted to enter the Administrator password, do so. Click Continue, and you or another user can now run the program with administrative rights.

Alternative Fixes

If the advice above doesn't help, there are other options to help your old programs adjust to a new OS. If not, you can likely salvage the data from your legacy programs. You may be familiar with some of the methods described below as they apply to previous incarnations of Windows.

Use Compatibility Mode. This is a tool that changes the operating "environment" of Vista so that it mimics a previous version of Windows.

To launch this tool, right-click the shortcut icon or executable file of the program and choose Properties. Next, click the Compatibility tab. Under Compatibility Mode, check the box next to Run This In Compatibility Mode For and then choose the operating system on which you previously ran the program from the drop-down menu.

When you've selected all your settings, click Apply and OK and then launch the program again.

Download New Drivers. You may need to download updated drivers for older programs and even peripherals. Again, the manufacturer's Web site of the program should list updated drivers available at no cost. Restart your system once you've installed the new driver(s).

Update The Program. For some programs, updated drivers won't be sufficient to iron out issues with Vista. Nothing short of a full upgrade

to the newest version or release of the program will work.

Convert Data. Sometimes it's hard to let go of outdated computers and software. But sometimes we don't have a choice. The publisher of our old program may no longer issue updates or release new versions, so there's little or no chance of running it smoothly on the newest OS.

However, that doesn't mean you have to give up entirely on the data from that old program. One option is to save data from the program on your old system (or on your system prior to upgrading Windows) in a universal file format, such as RTF (Rich Text Format) or TXT (plain text), which most programs and operating systems will recognize.

Similarly, your old program may give you the option to export data in a file format that new programs from the same manufacturer will recognize or that programs in the same genre can use. Our older version of Microsoft Money, for instance, allows us to export data to tax programs through a TXF (Tax Exchange Format) file.
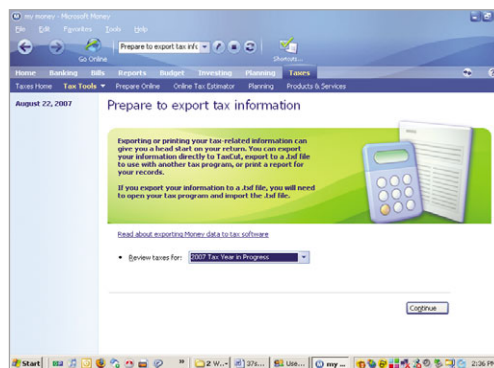
Use the Save As and/or Export tools in your older programs to preserve data and transfer them to newer, Windows Vista-friendly programs.

Use the Save As, Export, or similarly named command in the program's File menu to capture the data. You may have to discard the old program, but at least you can salvage what you created with it. ▐▌

by RACHEL DEROWITSCH

Upgrade Problems

Navigate Those Pesky Vista Installation Pitfalls

If you're thinking about installing Windows Vista, you'll probably want to do more than crack open the software box and pop the disk in the drive. Why? Because installing the latest Windows operating system isn't quite as easy as it sounds. In fact, there are a number of options for installation—and almost as many pitfalls along the way. To save you some headaches, we'll go over some things to keep in mind as you make the leap to Vista.

Problem: **How Can I Know Whether Vista Will Run On My Computer?**

Solution: Before you attempt to install Vista, make sure your system has the guts (commonly called system requirements) to run the OS (operating system). Microsoft isn't kidding about the hardware necessary to run this operating system, either—you probably won't be able to stuff the OS into that aging computer in the basement.

Here are the recommended requirements for the Home Premium/Business/Ultimate Editions: 1GHz 32-bit (x86) or 64-bit (x64) processor; 1GB of system memory; a 40GB hard drive with at least 15GB of available space; support for DirectX 9 graphics with a WDDM driver, at least 128MB of graphics memory, Pixel Shader 2.0 in hardware, and 32 bits per pixel; a DVD-ROM drive; audio output; and Internet access.

If you have a less-gutsy system but are still hankering to run Vista, you can try to install it using Microsoft's minimum requirements: an 800MHz processor and 512MB of system memory; 20GB hard drive with at least 15GB of available space; support for Super VGA (Video Graphics Array); and a CD drive.

If you're in the market for a new computer, make sure it has the "Windows Vista Capable" designation. This logo indicates that a computer meets the requirements for efficiently running Vista.

Problem: **I'm Not Sure Which Edition Of Vista To Install.**

Solution: This depends on which version of Windows is already on your system and which Vista features you want. For example, you can't install the Windows Vista Home Premium version as an upgrade over Windows XP Professional. Because the Vista upgrade path is a little more complicated than in the past, take a look at Microsoft's site to make sure you choose the correct edition of Vista.

One interesting note is that the Windows Vista disk includes the programming for all the editions of Vista. The complete code is on the disk; when you enter a product key, it unlocks the specific features for the edition that you've paid for. If you later decide to upgrade to an edition with more features, you can purchase a new product key from Microsoft which "unlocks" the additional features.

Problem: **I Don't Understand The Difference Between An Upgrade And A Clean Installation.**

Solution: The retail version of Windows Vista Home Premium offers two main ways to put the operating system on your computer: upgrading or performing a clean install.

Upgrading is considered an "in place" installation because you install Vista over a previous Windows version. Upgrading is a good choice if you already have an appropriate Windows version on your computer and want to preserve your existing files, settings, and programs.
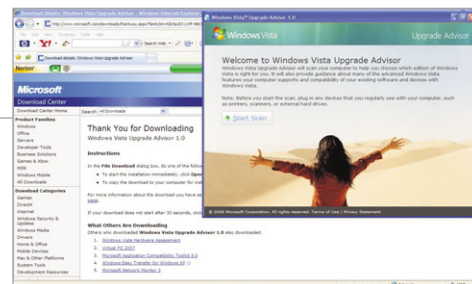
The upgrade installation takes significantly longer than does installing a new, clean copy. That's because when you use an in-place upgrade, Vista has to gather information about the current files, programs, and settings. It

Before trying to install Vista, check out possible problems with the Windows Vista Upgrade Advisor utility, available free to download at Microsoft.com.

then places this information in temporary, hidden folders while installing the new operating system. Fortunately, even though the process takes time, it also takes place behind the scenes.

In contrast, a "clean" installation is better if your current operating system isn't upgradeable to Vista or you don't need to keep your existing files and programs. Some users also opt to create partitions on their hard drive: one for a clean installation of Vista and the other for their existing Windows version (such as WinXP). Of course, if your computer doesn't have an operating system at all, installing a new copy of Vista is your only choice.

Keep in mind that although you may already have an older Windows OS installed on your machine, you can still perform a clean installation of Vista by installing it on its own hard drive partition. To do this, choose the Custom (Advanced) option when prompted to do so. The Where Do You Want to Install Windows screen, shows a list of partitions on your hard drive. Choose the partition where you want to install the program. If there aren't any partitions listed, Windows Vista will be installed on the entire physical drive.

Problem: I've Installed Vista, And Now Some Of My Hardware And Software Isn't Working Properly (If At All).

Solution: It's likely that your hardware or software may require an updated driver to work with Vista. Try downloading and installing the new drivers to fix the problem.

Vista automatically installs some drivers from the installation disk. Assuming you have an always-on Internet connection, Vista will also automatically download additional, newer drivers from a Microsoft-maintained database.

If your computer isn't connected to the Internet when you install Vista, it's probable that some of the drivers you need aren't installed. If this is the case, connect to the Internet after the basic installation is complete, and then manually download and install the drivers.

Of course, there is also the possibility that your hardware or software simply isn't compatible with Vista. This holds especially true for aging machines. Luckily, you can sniff out potential software or hardware incompatibilities using Microsoft's Windows Vista Upgrade Advisor. To utilize this tool, make sure your computer is connected to the Internet when you start installing Vista. On the opening installation screen, click Check Compatibility Online. As an alternative, you can directly access the Upgrade Advisor Web site at snipurl.com/1q35k.

The Upgrade Advisor examines your system to ensure that it's strong enough to run Vista. Even better, the utility warns you about any software or hardware issues you may encounter.

Problem: I Have Files And Settings From My Old Computer That I'd Like To Transfer. Is There A Painless Way To Do That?
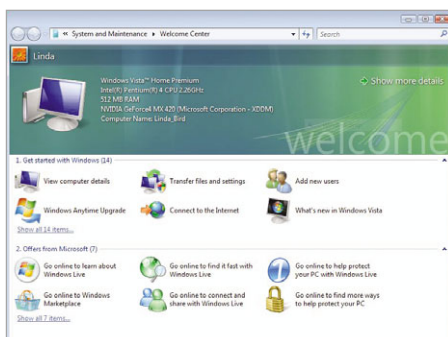
Solution: Try using Windows Easy Transfer. This utility helps you transfer files, email messages, user accounts, and other settings from an older Windows 2000/XP system to Vista. You can use Windows Easy Transfer in conjunction with an external hard drive, CDs or DVDs, a home network, or a specially-designed cable to move data to the Vista system. The quickest option is to use an Easy Transfer Cable, which simply requires you to download the Windows Easy Transfer Utility and then plug the cable into both machines. The data should transfer at a rate of about 20GB per hour, making it the method of choice if you have an exceptionally large amount of data to move to your Vista machine. If you decide to purchase an Easy Transfer Cable, make sure that the package has a Certified For Windows Vista or Works With Windows Vista logo. To download the Windows Easy Transfer tool or find out more information about it, go to snipurl.com/1q362. ▋▋

BY LINDA BIRD

Prevent Backup Woes

Vista's backup program uses a different file format than does the comparable program in Windows XP. Because of this, you may find yourself tearing out your hair trying to restore WinXP files after you've upgraded to Vista. To prevent this problem, consider backing up your files using a third-party imaging tool such as Norton Ghost ($69.95; www.symantec.com) before you install Vista. ▋

EXAMINING ERRORS

BY JEFF DODD

Problem. Each time a reader boots her computer, an error message appears on-screen. The message flashes and the computer acts like it is rebooting. The reader claims she is not pressing any keys during the startup routine.

Error message. Error 0210: Stuck Key

Solution. During a computer's startup routine, the BIOS (basic input/output system) communicates with the system's various hardware components to determine whether they are working properly. The process takes a fraction of a second and usually goes off without a hitch. But if the BIOS detects trouble with one of the components, it will present an error message similar to this one.

As you probably expect, the Stuck Key error indicates a problem with the keyboard. Specifically, the BIOS received a signal from the keyboard indicating that one of the keys was pressed down when it shouldn't have been. The simple diagnosis is a stuck key, as the message suggests. We recommend that you give your keyboard a good cleaning. Wipe the keys with a damp cloth to remove sticky residue. Next, eliminate all of the loose hair, dust, crumbs, and other particles that accumulate inside the keyboard by blowing them out with a can of compressed air, sucking them out with a vacuum and wand attachment, or simply shaking them out by holding the keyboard upside down. Hopefully that will resolve the issue.

If it does not, your keyboard problem is probably electrical in nature, and thus more serious. You will need to purchase a new keyboard for your PC. ▌

Problem. A reader received a USB diskette drive from his employer, but he cannot get it to work with his computer. Whenever he inserts a 3.5-inch diskette into the drive, he receives an error message. He receives the error message even when he switches diskettes. The reader reports that he is running Windows XP.

Error message. The disk in drive A is not formatted. Do you want to format it now?

Solution. This error typically occurs when your computer tries to write data to an unformatted diskette or read data from a corrupted diskette. Unfortunately, we know your problem is not typical because you receive the error message when using formatted and uncorrupted media. The problem obviously lies elsewhere.

We believe it may lie with the **driver** (a program that enables a hardware device to communicate with the rest of the system). Interestingly, your particular drive (a Sony MPF82E) does not have a driver designed for use with WinXP. We suggest that you disconnect the drive from the USB port, uninstall its corresponding software (if any), reboot the computer, reconnect the drive to a USB port, and follow the prompts that appear on-screen after Windows recognizes the new hardware.

Opt to use the driver that Windows recommends rather than the driver software that came bundled with the drive. Following the installation, insert a diskette in the drive and check for the error.

If the problem continues, uninstall the drive and reinstall it on a PC running Windows Me, Windows 2000, or Windows 98. Your drive was designed to work with these operating systems in particular. If you can get the drive to recognize your diskettes on this second PC, then it's certain the error is caused by an incompatible driver. In this case, you will not be able to use the drive with WinXP. Leave it connected to the second system or install it on another computer that runs one of the supported operating systems.

If you receive the error on the test system, however, then the drive has most likely malfunctioned. You can send it to the garbage heap. Better yet, look in your local yellow pages for companies that provide computer recycling services. Give the drive to one of them and keep the landfills free of needless debris. ▌

Problem. A reader recently purchased a new PC running Windows Vista and Internet Explorer 7. While using this computer to download some online files, he received an error message that prevented him from completing the download. The error persists whether he uses IE7 or the latest Firefox browser.

Error message. Server not found. Firefox can't find the server at download.microsoft.com.

Solution. Had you received this error message while using only the Firefox browser, we might have suspected a buggy browser or an offline server as the source of the problem. In that case, you could have resolved the matter simply by reverting to a different browser or waiting a few hours before attempting the download a second time.

But the situation is more complex than that, for you also claim to receive the message while using IE7. This leaves us a bit perplexed. Further adding to our confusion is the fact that you are not alone. In researching the issue, we discovered at least a handful of online complaints from computer users who have experienced the exact same error under identical circumstances. That's fewer than we would have expected if the problem were caused by a conflict between competing software developers, but it's enough to rule it out as a mere idiosyncrasy of your particular computer system.

Our initial thought, therefore, is that the error is caused by a configuration issue. Specifically, we recommend that you modify the existing DNS (domain name system) server address setting. The DNS server translates plain-English Web addresses—like www.smartcomputing.com—into numerical IP addresses—like 12.39.144.5—thereby enabling you to access online content. By default, Windows Vista will automatically search for a new DNS server address every time you go online. You may be able to eliminate this error message by specifying it use a particular DNS server address instead.

You can do so in Vista by opening the Control Panel, selecting the Network And Internet category, accessing the Network Center, and opting to personalize the existing settings. In the resulting dialog box, highlight the active connection (in most cases, there will be only one connection listed) and click the Properties button. Another dialog box will appear on-screen; click its Properties button, as well.

At this point, you will be asked to permit or deny the attempt to change system settings. Click the Continue button to proceed. Another dialog box will appear on-screen. Review the list of connection tools, highlight the one labeled Internet Protocol Version 4, and click the corresponding Properties button. When the Properties dialog box appears on-screen, select the Use The Following DNS Server Addresses button. Type **208.67.222.222** in the Preferred DNS Server field and type **208.67.220.220** in the Alternate DNS Server field. Click OK to save your changes and reboot the computer. These IP addresses point to DNS servers maintained by OpenDNS, a free online DNS service.

Hopefully, this change will eliminate the error message for you. ▮

Problem. A reader reports that she has begun to receive error messages when she tries to download files from the Internet. The messages prevent her from downloading the files to her PC.

Error message. C:\Documents and Settings\User\Local Settings\Temporary Internet Files. Windows cannot access the specified device, path or file. You may not have the appropriate permission to access them.

Solution. We suspect that your problem lies with the selection of the Temporary Internet Files folder, a hidden personal folder, as the default download destination. Maybe you did not realize this is where you are saving your files. The setting may have been altered surreptitiously by a virus, a spyware agent, or even an overzealous Web site. You can try to reset the destination the next time you download a file. When the Save As window opens on-screen, change the Save In field so that it points to your My Documents folder. That ought to do the trick.

We also recommend that you run antivirus and antispyware scans of your entire system. ▮

Have questions about an error message you've seen? Send us your message (errormessages@smartcomputing.com), and we'll try to decipher it. Tell us what version of Windows you're using, give the full text of the error message, and provide as many details in your explanation as possible. Volume prohibits individual replies.

FAST FIXES

Pinnacle TVCenter Pro 4.9 Patch

Problem: Pinnacle Systems has released a patch for its Pinnacle TV-Center that fixes minor problems with earlier versions and provides compatibility with a wider range of devices.

Resolution: Users of either Pinnacle TVCenter Pro or Pinnacle MediaCenter may download and install the Pinnacle TVCenter Pro 4.9 patch. However, if you use Pinnacle MediaCenter, you should weigh your options first. Although this patch will provide improvements to MediaCenter's TV functions, you will lose some of MediaCenter's other functions, such as features for media management and media playback with the TV View graphical interface. These features include, among others, managed video file playback, music playback with playlists, and slideshows. If you want to maintain these features of Pinnacle MediaCenter, you should not install the patch at this time. If you choose to upgrade your software (either Pinnacle TVCenter Pro or Pinnacle MediaCenter), go to www.pinnaclesys.com and click the Support link at the top of the screen. Locate and click the TVCenter Pro 4.9 Patch (Vista - XP) link in the Top Downloads list. On the resulting page, scroll to the bottom of the gray Pinnacle TVCenter Pro 4.9 box and click the appropriate link for your version of Windows. Your options are Windows XP-SP2 and Windows Vista 32. Make sure that you choose to save the file to your hard drive rather than running the file immediately. After you've downloaded the file, click Start, All Programs, Pinnacle TVCenter (or, if you have the full Pinnacle MediaCenter, click Pinnacle MediaCenter), and Uninstall. Follow the instructions on the screen to uninstall the old version of the Pinnacle Systems software. After you uninstall the software, restart your computer. Then, locate the file that you downloaded from Pinnacle Systems' site and double-click to launch it. The installer will attempt to validate that you have a legal copy of the software. If prompted, type the serial number from your original Pinnacle TVCenter Pro or Pinnacle MediaCenter installation disc in the Serial Number field. The on-screen instructions will guide you through the rest of the process. Restart your computer when the installation is complete.

www.pinnaclesys.com

Microsoft MapPoint 2006 and Streets and Trips 2007 Construction Update

Problem: Your copy of Microsoft MapPoint 2006 or Microsoft Streets and Trips 2007 does not have up-to-date information about road construction.

Resolution: Make sure that MapPoint 2006 or Streets and Trips 2007 is not running. Go to Microsoft's Download Center (www.microsoft.com/downloads) to download and install the most recent Microsoft MapPoint 2006 and Streets and Trips 2007 Construction Update. Type **MapPoint 2006 and Streets and Trips 2007** in the Search field and click the Go button. In the search results, click the MapPoint 2006 And Streets And Trips 2007 Construction Update link. On the resulting page, click the Download button in the blue Quick Details box in the center of the screen. When prompted, choose to save the file to your hard drive and browse to locate the folder where the program files for MapPoint 2006 or Streets and Trips 2007 is installed. You will probably find it at C:\PROGRAM FILES\MICROSOFT MAPPOINT\DATA or C:\PROGRAM FILES\MICROSOFT STREETS AND TRIPS\DATA. Once you've selected the appropriate Data folder, download the file. The next time you launch MapPoint 2006 or Streets and Trips 2007, the new construction information should be incorporated into the program's map data.

www.microsoft.com/downloads

FIX OF THE MONTH

PowerDVD Ultra build 3104a.1

Problem: Cyberlink has identified problems that may occur when using PowerDVD Ultra with Blu-ray Disc and HD DVD media. In addition, previous releases of PowerDVD Ultra did not support secure Blu-ray Disc and HD DVD playback on systems with an Intel 965 or Intel 946 graphics chip when Windows Vista's Aero Glass interface was selected.

Solution: Download and install PowerDVD Ultra build 3104a.1, which is available on Cyberlink's Web site. To locate the download, go to www.cyberlink.com and click the Downloads tab at the top of the page. Then locate the PowerDVD Ultra row and click the corresponding blue icon in the Patches column. On the resulting page, click the Click Here link for the update patch dated 2007-08-06. Then, click the red Download button. When prompted, choose to save the file to your hard drive. Locate the file you just downloaded, which is named CyberLink.3104_R1_EVR_Logo_DVD070614-02.exe, and double-click it to launch the installer. Follow the on-screen instructions to complete the installation of build 3104a.1. When the update is installed, restart your computer.

www.cyberlink.com

Q&A

Online

Q I play an online game, and recently the company that runs the game sent out an email warning about the hazards of "keyloggers." What are they, and what should I do to avoid them?

A Keyloggers are programs that run on your computer, capturing every keystroke you enter with your keyboard in a small file. When the keylogger's data file meets a threshold set by its creator, it sends this data to the creator's computer or email account.

As you can imagine, this data can contain very sensitive information: login information from Web sites, your username and password on your computer, as well as a myriad of other tidbits that you wouldn't want to share with anyone you didn't trust. The game manufacturer is probably experiencing a number of accounts being hijacked through the use of keyloggers.

Your computer can become infected with a keylogger in the same manner it would be infected by a virus: You download a file and run it on your computer without exercising due caution. The keylogger could arrive as an email attachment or masquerade as a legitimate file that you retrieve from a Web site.

In addition, if you're using an old version of Internet Explorer or Firefox, you could be especially vulnerable to "drive-by" hijacking. Security vulnerabilities of older versions of these browsers can allow someone to set up a Web site that will automatically install a keylogger on an unwary Web surfer's computer.

The best way to avoid keyloggers is a dense defense strategy. First, make sure that you're using the latest version of Internet Explorer or Firefox. Next, make sure that you have an antivirus software package that's equipped with up-to-date virus definitions. You'll also want to install a malware detection package like Ad-Aware (www.lavasoft.com) or Spybot Search and Destroy (www.safer-networking.org). Both are free. Finally, don't trust any file unless you've received it from a reputable source.

Windows

Q I've seen many mentions of "Insert your Windows CD into your PC . . ." in numerous *Smart Computing* articles, as well as "Refer to your PC's users manual for instructions . . .", but my computer didn't come with a Windows CD or users manual.

A One of the side effects of the shrinking cost of computers is the corresponding decrease in items that we feel are crucial to supporting your computer. When we first began using computers, it wasn't unusual to receive a large paper manual, plus an array of floppy disks holding the operating system and any necessary drivers. When Windows began shipping on CDs, we were relieved of the drudgery of using over 20 floppies when we had to reinstall the operating system, but soon the equipment manual was shipped on a CD.

Eventually the Windows CD began to disappear, frequently replaced by OEMs (original equipment manufacturers) with a system restore partition. The manual also disappeared, replaced by a Web page at the vendor's Web site. The primary motives behind these changes were financial. There was less paper to print and ship and fewer CDs to manufacture and package, and as a side benefit, less piracy for Microsoft. When OEM vendors like Dell ship millions of computers, a small saving in costs can have powerful bottom-line effects.

Unfortunately, the consumer pays the price for this when a problem arises with the computer. If your computer is broken, accessing a

Web site to peruse a manual can be impossible. So although online manuals can be updated to correct errors and omissions, they aren't much use if you can't access the information.

In addition to the problems created by online manuals, using a system restore partition to hold a set of restoration files that you need to burn to disc is a solution that is fraught with problems. When most users purchase a new computer, they're in a rush to set it up and get it working. They may read the instructions about creating the restoration disks, but many new users won't have blank disks handy and eventually forget to create the restoration disks. When they need the

disks, the computer probably won't be in any shape to create the disks.

The solution? If you have a restoration partition holding a backup copy of Windows, be sure to create a set of restoration disks now. And while you're at it, print out a copy of whatever manual you can download from the vendor. It may not be much, but it's better than nothing when you're trying to figure out how to replace a defective component. And finally, when purchasing a new computer, see if it's possible to get a real copy of Windows on CD/DVD. It may cost you a bit more, but it'll help keep you from pulling your hair out when you need to reinstall Windows.

Online

Q I just bought a new desktop PC, and I've decided to hold off on purchasing an office suite because I've heard a lot about online applications like Google's Spreadsheets. Are these "ready for prime time," and why are they referred to as Web 2.0 applications?

A There are no hard-and-fast rules for what determines a Web 2.0 application, though most applications that are lumped into this category have similar characteristics; they rely on user-generated content, have a significant social component, and require Internet access for their use.

The concept of a Web 2.0 application doesn't apply to Google's Docs and Spreadsheets application as well as it does to sites such as Flickr (www.flickr.com), Wikipedia (www.wikipedia.org), or del.icio.us (del.icio.us). That doesn't make Docs and Spreadsheets less useful, just different.

Whether Docs and Spreadsheets are ready for prime time is a matter of personal opinion and depends on how you plan to use the applications. Docs and Spreadsheets consist of two online applications that mimic Microsoft Word and Microsoft Excel. Neither application can match the breadth and scope of Microsoft's offerings, but they don't really aim to.

Instead, Docs and Spreadsheets focuses on supporting the minimum requirements of a word processor and spreadsheet application. If you're an Excel power user who conjures

complicated macros and formulas for your spreadsheets, Google's minimalist approach may leave you feeling a bit underwhelmed. The same is true for Word users who are at home with custom templates that integrate with Excel spreadsheets, Access databases, and other collaborative tools.

Where Google's Docs and Spreadsheets does shine is in ease of use. You can upload existing Word and Excel documents, edit them online, and then save them to your Desktop in a variety of formats. You can also share your documents with other users, giving them either editing rights or just viewing rights.

The only downside to using Docs and Spreadsheets is that you have to be connected to the Internet to edit your documents. If this is a significant barrier for you, it might be worth investigating a similar Web-based office suite, Zoho (www.zoho.com). Zoho offers word processing, spreadsheets, and much, much more. Ironically, Zoho uses a Google tool that allows you to work offline.

Another exciting new online word processing application that's currently in beta testing is Buzzword from Virtual Ubiquity (www.virtub.com). It's not often that we've described an office application as beautiful, but Buzzword clearly fits the bill.

One of the best features of these three applications is that they are free and will work with almost any computer that has a modern Web browser. They allow you to

access your documents from any location as long as you're online, they encourage collaboration, and they breathe a bit of fresh air into an application arena that has become a bit stale and stuffy. The downside is that you're entrusting your documents to a third party. We have no reason not to trust the three previously mentioned vendors, but that doesn't mean it's necessarily wise to put your proprietary and confidential documents online.

If you find that online applications aren't matching what you want or need in an office suite, you may find that OpenOffice (www.openoffice.org) is a viable alternative to Microsoft Office. It includes a word processor, spreadsheet application, presentation software, equation editor, graphics editor, and database. Best of all, it has a thriving development and user community that is focused on providing one of the best office suites at a price that's hard to beat: free!

Software

Q I have used Quicken in the past and ordered Quicken 2007 Basic, but it won't install. I put the disc in the CD drive, click on start, and it goes through the whole process, including the last big round circle that says Quicken is installed, but I can't locate the program. The company gives all sorts of advice, but there's still nothing. I am using WinXP with all of the latest updates.

A You don't say specifically how you've tried to resolve this issue or whether you had previous versions of Quicken installed on your current system, but a problem with Quicken 2007 installation seems to commonly result from an incomplete uninstallation of previous versions of Quicken. Intuit, Quicken's publisher, offers some advice and two additional utility applications to completely remove previous versions. First use

Windows' Add Or Remove Programs application (found in the Control Panel in WinXP) to begin the removal process. Next, you should run the two utilities, QCcleanUI.exe and MSIzap.exe. To find the utilities and complete detailed instructions for running them, go to www.intuit.com, click Support, click All Quicken Support, and search for answer ID 5318.

If running these utilities still fails to solve the problem, there may be a corrupted file associated with the Windows Installer. A fix for this problem is provided by the Microsoft Installer Cleanup Utility found at tinyurl.com/47d8.

None of these procedures will delete your Quicken data files, according to the documentation at Intuit's and Microsoft's Web sites. However, if you're feeling a little nervous, copy the file(s) to another location before proceeding.

Hardware

Q I just bought a Dell Inspiron 1721 notebook with 2GB of RAM, an AMD 64x CPU, and Windows Vista Home Premium. After just a few hours, the display automatically adjusted to Windows Basic. It said there wasn't enough memory. I've added no programs or data other than an Internet program. Dell diagnostics said everything was working properly. Just opening Windows uses up 1GB of memory. What is wrong here?

A According to Microsoft, the key minimum system requirements for Vista Home Premium edition are 1GB of RAM and

a video card that has a minimum of 128MB of graphics memory. On the surface, your new notebook looks capable of supporting the full features of Vista Home Premium Edition, including the snazzy Aero interface.

The problem probably lies in your notebook's video card. The Inspiron 1721 uses an "onboard" video card (currently the ATI Radeon Xpress 1270) that's not a true video card. Instead, the video card chips and other components are built into your system's motherboard. This is usually a more affordable design, and many notebook and desktop computers use onboard video cards.

The downside to an onboard video card is performance. Compared to a dedicated video card, an onboard video card will typically be slower and have less memory. In the case of the Xpress 1270, this card shares your notebook's 2GB of RAM. That means that as you launch more applications, the video card will have less memory to work with.

Windows Vista is designed to work with both older, slower computers as well as the latest hardware. As you've experienced, it does this by "degrading" some of the features it offers, primarily the Aero interface that is so eye-catching.

What's troubling is that Dell currently advertises and ships the Inspiron 1721 with Windows Vista Home Premium Edition. You could increase the amount of RAM in your system, but in our opinion, that wouldn't be the best solution. Throwing good money after bad won't necessarily resolve the performance problems. Instead, our recommendation would be to contact Dell customer support and bring this problem to their attention.

Windows

Q I am using a Compaq Evo N1020v with Windows XP Professional SP2 (Service Pack 2). With nothing else to do, I decided to run a check on the updates installed on this computer. I have 20 Windows XP Hotfixes from 2005, 26 Security updates from 2005, 53 Security updates from 2006, and 36 Security updates from 2007. Can I remove the Hotfix and security updates for 2005 and 2006?

A It is possible to manually uninstall updates and patches through the Add & Remove Programs utility. That said, we don't recommend that you do so for a couple of reasons. First of all, if you decide to uninstall them, some applications on your system may stop working. Even with research, it may be difficult to determine how exactly certain patches interact with the software or hardware on your computer. If everything is working as it should, we advise against possibly upsetting the balance of your system.

We also recommend that you leave these updates and patches installed because new patches may depend on earlier ones. Though some patches act independently and don't require the presence of older ones, others actually build on patches you should already have installed on your system. If the required patch is missing, you'll run into problems installing a new one. Because it's sometimes hard to track down this sort of information, we think you're better off leaving the updates and Hotfixes installed. Why mess with a good thing?

Hardware

Q I have an HP PSC 2170 All-In-One, mostly used for printing pictures. Recently, I tried printing a list of pictures, but the color was wrong, so I tried to cancel. Now, every time I turn the printer on, it wants to go ahead and print all eight pictures anyway. How can I get it to stop?

A Most likely, the list of pictures is still in the Windows print queue on your hard drive. Click Start and on the right side of your WinXP menu, look for Printers And Faxes. If you don't see this option, click Control Panel and find it there. If you're using Windows Vista, click Start, Control Panel, Hardware And Sounds, and Printers. There may also be a printer icon in the right corner of your taskbar (the opposite end from the Start button). If so, simply double-click it to open the Print queue dialog box.

After you've opened the Printer's dialog box, double-click the icon representing your printer. In the dialog box that opens, you should see a list of your photos ready to print. Click Printer on the top menu and then select Cancel All Documents. If a dialog box pops up asking if you're sure you want to cancel all of the documents, click Yes. If nothing happens to the list, make sure your printer is powered up. Sometimes, Windows needs to talk to the printer before it will release the queue.

Frequently Asked Questions

Answers to users' most common questions about USB Drives

You do not need to turn off and disconnect the USB drive when you are done using it—you can, but it's not necessary. The drive will generally power down to conserve electricity once it's been idle for a short period of time.

FAQ Why don't I get the same capacity from my new USB hard drive that I see listed on the box?

The discrepancy is in the terminology. Hard drive manufacturers define hard drive capacity by using decimal notation (or base 10) to say that 1GB is equal to 1,000,000,000 bytes. Operating systems and applications use binary notation (or base 2), in which 1GB equals 1,073,741,824 bytes.

When an OS (operating system) sees 1,073,741,824 bytes of storage and divides that by 1,073,741,824, the result is 1 (or 1GB). But when an OS sees 1,000,000,000 bytes of storage and divides that by 1,073,741,824, the reported result is less than 1 (under 1GB). This difference in notation causes Windows and many other software tools to underreport the drive capacity, making the drives seem smaller than they are. Also, remember that some drive capacity is consumed when the drive is partitioned and formatted, resulting in slightly less free space available.

FAQ Will my new USB hard drive work on an older PC or laptop?

If your PC has a USB port, it will typically support a USB device such as a hard drive. To get the best data throughput, however, you will need a USB port that is USB 2.0-compatible. If the port is not USB 2.0-compatible, you will get much slower data transfers to or from the drive, but it should still work. The documentation that accompanied the computer should indicate whether the ports are USB 2.0.

For best performance, plug the USB hard drive directly into a root port on your PC. Do not route the USB drive through a hub where other USB devices are connected, because this can potentially lead to bottlenecks when the hard drive reads or writes.

If your PC does not have a USB port (or does not have USB 2.0-compliant ports), it's easy to install a USB 2.0 expansion card, adding two or four new USB 2.0 ports to your system. All you need is an available PCI (Peripheral Component Interconnect) expansion slot in the computer, but double-check the system requirements before installing an expansion card.

FAQ Do I need to connect my USB drive directly to the PC, or can I attach it to the USB port on a monitor or keyboard?

You can typically connect a USB device to any USB port and it should work. You can also connect the USB hard drive to the PC through a USB hub where other USB devices are connected, and the drive should also work. However, hubs and cabling can introduce timing delays, and other USB devices competing to send their data across a hub can hinder the data transfers to or from the drive and impair its performance. If you want the very best performance from your USB hard drive, connect it directly to a USB root port on the PC itself.

FAQ Do I need to turn the USB drive off and lock it up in a secure place when I'm done with it?

You do not need to turn off and disconnect the USB drive when you are done using it—you can, but it's not necessary. The drive will generally power down to conserve electricity once it's been idle for a short period of time.

You should turn off the drive when you won't be using it for an extended period, or when you want to move the drive to another PC. In this case, right-click the Safely Remove Hardware icon in the System Tray, select the drive entry from the list of devices, and then click Stop. Once communication with the drive has been halted, you can power down the drive and disconnect the USB cable.

If you don't need the drive and plan to turn it off and disconnect it, it's always a good idea to secure the drive in a locked drawer or cabinet. This guards the drive against theft and helps to protect any personal or sensitive data that might be on the drive. ❚❚

ACTION EDITOR

Suspect Specs & A Washed Up Stingray

I recently bought my first computer, a Dell Dimension E521 and a 22-inch monitor. According to the advertisement in the Dell catalog, the monitor supports a 1,920 x 1,200 resolution. You can imagine my surprise when I got the monitor and realized that it has a native resolution of 1,680 x 1,050. To further complicate matters, the bundled monitor has a white DVI (Digital Visual Interface) plug and my new computer only has a blue VGA (Video Graphics Array) port. I've been trying to get these issues resolved for over two weeks and there's still no light at the end of the tunnel. Can you help?

Name and location withheld.

We contacted our Dell representative who promised to look into the situation. Later, Dell told us that the customer had been informed that the monitor specs listed in the advertisement were a mistake. Dell offered a refund and free shipping on the return, but the customer opted to keep the monitor. This demonstrates that if the specs sound too good to be true, they probably are. Do yourself a favor and call ahead to make sure you're getting what you expect.

It's also a good idea to dig a little deeper when shopping for computers that come with additional hardware such as monitors and printers. This user learned the hard way that just because something is bundled doesn't mean all of its components will work together flawlessly. The customer told us that Dell's support folks suggested using an adapter, which can convert the VGA video signals coming from his graphics card to a signal his DVI monitor can display.

In the September 2005 issue of Smart Computing, I read an article where you recommended the Stingray hardware firewall device. I went online and ordered one, but it has been a month and I still haven't received it. I repeatedly tried to contact the company, sending several emails and leaving voice messages, but to no avail. I paid with PayPal, but I can't submit a dispute resolution claim without setting up an account. I'm having enough trouble working with one company, so I'd rather not bring another into the mix. Can you help?

Gail Bredsten
Blaine, Minn.

We started by sending Stingray's customer support an email to follow up on Gail's request. When we didn't hear back after a few days, we called a phone number from the Web site, but no one answered and the voice mail inbox was full. The second number we tried was for a distribution center in Canada. We informed the representative of Gail's problem and were told that someone would look into it. Joshua Gulick, the writer who originally reviewed the Stingray firewall, gave us another email address to try, so we sent another message.

Three and a half months after Gail placed her order, her Stingray firewall mysteriously showed up. Despite several messages, not once did anyone directly affiliated with Stingray contact us to discuss our concerns. Since then, we have attempted to access Stingray's Web site (www .stingrayinc.com) on numerous occasions, but the address returns a "Not Found" error.

When we test products and make recommendations at *Smart Computing*, we do so to the best of our ability at press time. The Stingray firewall performed well in our tests and the company was easy to contact. But a lot can happen in two years, especially in this industry. Unfortunately, we can't always keep up on a specific company or its ability to serve its customers.

Even if there was an easy way to order products from Stingray, we can't recommend doing so until it can resolve its current poor customer support situation. ▮
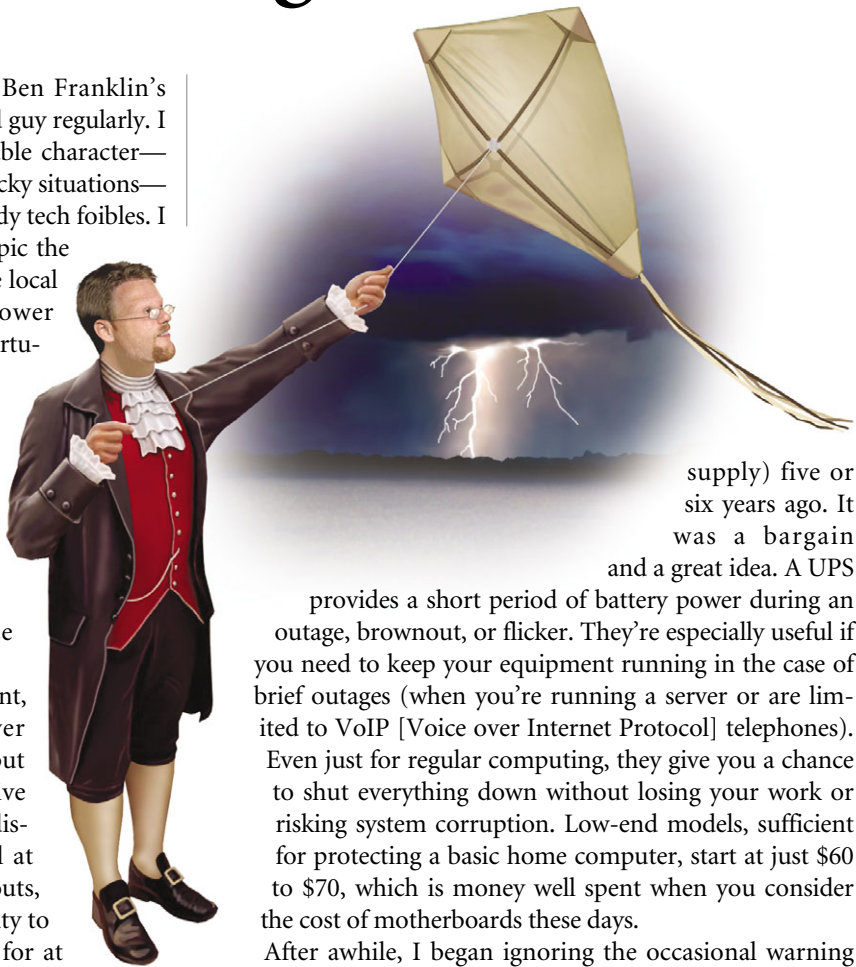
A Shocking Tale

We live about three blocks from Ben Franklin's grave, so I get to walk past the old guy regularly. I often wonder what this remarkable character—technologically minded and no stranger to sticky situations—would think about some of our more foolhardy tech foibles. I had a perfect opportunity to consider the topic the last time I walked by. I was on my way to the local computer store, seeking a replacement power supply and some new memory. I'd been unfortunately careless with electricity and, unlike certain founding fathers, had little to show for it except a malfunctioning surge protector and an unstable computer system. Like flying a kite in a thunderstorm, ignoring electricity's dangers when it comes to your computer is just inviting trouble. And since Ben made that whole electricity thing passé, your computer's resting place won't even get a spot on the tourist circuit.

My setup, like all decent power management, started with basic surge protection. Power strips are available everywhere these days, but do you really want to entrust your expensive equipment to a $5 strip from some cheap discount store? You need something that will at least handle moderate power spikes, brownouts, and electrical surges. A surge protector's ability to absorb energy is measured in Joules—look for at least a 1,200-Joule rating. Also, make sure your chosen model includes protection for telephone and network connections, which can serve as conduits for damaging surges. I usually reserve simple surge protection for nonessential peripherals that I don't really want to get fried but wouldn't be hurt by a sudden loss of power. As a result I've never lost a printer or speaker (to electrical problems), unlike some unnamed friends living in thunderstorm-prone regions of the country.

You should also test your home's wiring. Make sure any outlets the computer uses are grounded correctly. You'll lose a lot of protection without proper grounding, and older homes aren't always up to electrical code. Testers that plug in and light up red or green are available at any hardware store. My former dwelling didn't have a properly grounded outlet in the whole house, so even the best power protection had limited utility in worst-case scenarios. I got away with it, but it sure would have been nice not to have to run to the basement and unplug everything whenever a big storm threatened.

Ultimately, though, I failed to pay enough attention to the most advanced piece of my power protection puzzle. I started well, snatching up a used UPS (uninterruptible power supply) five or six years ago. It was a bargain and a great idea. A UPS provides a short period of battery power during an outage, brownout, or flicker. They're especially useful if you need to keep your equipment running in the case of brief outages (when you're running a server or are limited to VoIP [Voice over Internet Protocol] telephones). Even just for regular computing, they give you a chance to shut everything down without losing your work or risking system corruption. Low-end models, sufficient for protecting a basic home computer, start at just $60 to $70, which is money well spent when you consider the cost of motherboards these days.

After awhile, I began ignoring the occasional warning beeps and flashing indicators emitted by my UPS. I'd power it down, press the reset button, and never bother to look up the meaning of such signals. This was a bad idea. These days, I highly recommend testing and replacing your UPS periodically. The batteries lose their effectiveness over time, and those warning messages really do mean something. One night my UPS began beeping and simply wouldn't stop. The next day, the system started throwing out memory errors and spontaneously rebooting. I'm still not exactly sure what happened, but a new power supply, new memory, and (of course) a new UPS have returned the situation to normal.

Now I get to ponder other big questions about our famous neighbor. For instance, why do people commemorate his phrase "a penny saved is a penny earned" by throwing coins on his gravesite? ❚❚

BY GREGORY ANDERSON

Gregory Anderson *is a regular contributor to* Smart Computing *and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Share your shocking stories with Greg at* **gregory-anderson@smartcomputing.com**.

One Cell Phone, Black, No Cream, No Sugar

It's time for me to buy a new cell phone. I hate shopping for cell phones. For me, it ranks right up there with attending a junior high school band concert. But I have no choice, so lately I've been having conversations along the lines of the following with various pimply-faced adolescent salespeople:

PFAS: Hi! Welcome to Barney's Super Warehouse of Electronics, Music, and Appliances! Can I get you a super-vente caramel-vanilla-soy mondo cinnamon spice mocha with a shot of ambergris and an extra dollop of raspberry-crème transfer case fluid?

Me: Excuse me?

PFAS: Hi! Welcome to Barney's Super Wa . . .

Me: No, no, I heard you. I just . . . I'm looking for a cell phone; I wasn't expecting to be offered coffee.

PFAS: Oh, well, we now have a Starbucks right on the premises so you can have your coffee drinks while you shop! And next month we're gonna open up a second and third Starbucks, one each in the men's and women's restrooms!

Me: Er, well, I really just like plain coffee. You know, coffee with no, um, "stuff" in it. And small, regular, or large. I'm not even sure what "vente" means.

PFAS: *<looks doubtful>* Hmmm . . . plain coffee? Well, we *might* have that. It's probably a special-order item, though. I'd hafta ask a manager.

Me: Let's skip the coffee; I really just need a cell phone.

PFAS: Ah, well, you've come to the right place, sir! Here at Barney's Super Warehouse of Electronics, Music, and Appliances, we have a superb choice of cellular phones! Any type you want! Any color you want! I'm gonna say another sentence *just* so I get a chance to use yet another exclamation point! See there?! Ooooh, and look, I snuck *another* one in there, too, so I . . .

Me: *<interrupting>* They give you discounts on the coffee, don't they?

PFAS: Well, yeah. How did you know?

Me: It just came to me. So where are these phones?

PFAS: Here we are, sir. We have quite a collection for you to choose from!

Me: So, which phone is the cheapest?

PFAS: *<chuckles as he reaches into case>* Well, sir, as Dad always said, you don't wanna be penny-wise and pound foolish!

Me: What does that mean?

PFAS: Well, I'm not quite sure, exactly. . . . But here's our most popular model: the MotoRama X7-34BT. Bluetooth-equipped, Skype-enabled, includes Wi-Fi and a Web browser and a 16MP camera with MPEG video and a foldout 612-key keyboard with four octaves and an inflatable snowboard. It stores MP3s and videos and allows you to assign 312 separate ringtones!

Me: Er, where is it?

PFAS: Why, right *here*! *<holds out hand, in palm of which sits a small black chip>*

Me: That thing?! That little speck that looks like the shell of a sunflower seed?

PFAS: Yep! Pretty cool, isn't it?

Me: How do you type on that thing?

PFAS: Oh, you get used to it! You'll be texting in no time at all!

Me: Texting? I don't want to text. I want to talk. That's why I'm buying a phone. Phones are for talking. If I wanted to *write*, I'd use a computer or a typewriter or something!

PFAS: Typewriter? What's a . . .

Me: Never mind, just show me a nice, simple phone. It doesn't have to do text messaging or email, it doesn't have to play music, it doesn't have to wirelessly connect to my blender to start the margaritas as I pull into the driveway. I just want a plain old cell phone. One that just makes phone calls. That's all I wanna do: call people and have them call me.

PFAS: No Bluetooth?

Me: No.

PFAS: No text messaging?

Me: No! Just a plain old phone. Like the coffee, you know?! Like plain ol' regular coffee, with no extra stuff in it. I want a phone that just makes and receives phone calls and doesn't cost me a fortune. Do you have any of those?

PFAS: Well, I don't know, I'm gonna hafta ask a manager.

Sigh. This is not going to be any fun at all. On the other hand, it could be worse—I could be shopping for a new television. ▮▮
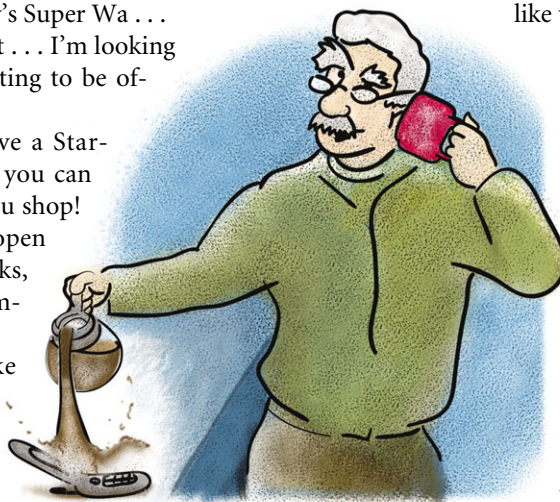
BY ROD SCHER

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